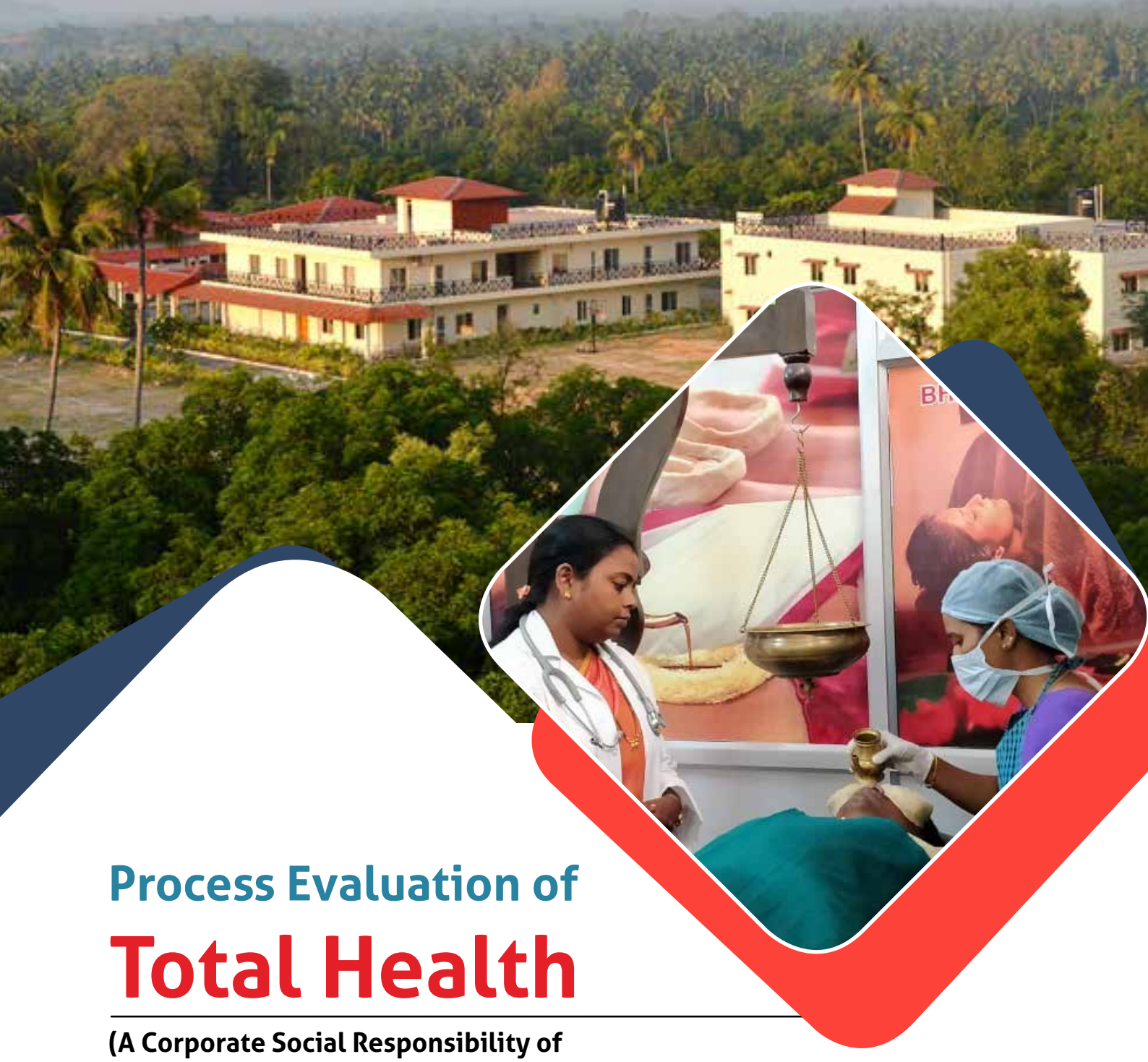

Process Evaluation of

Total Health

(A Corporate Social Responsibility of Apollo Hospitals Enterprises Limited)

TOTAL HEALTH
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Apollo HOSPITALS

Process Evaluation of

Total Health

(A Corporate Social Responsibility of Apollo Hospitals Enterprises Limited)

Poverty Learning Foundation (PLF)

(A Micro Policy Think Tank)
Hyderabad

June 2019

When the vision is clear, the results will appear. Keep your mindset positive as you work your plan, flourish, and always remember why you started.

–Germany Kent

Life Is Priceless

Our mission is to bring health care of international standards within the reach of every individual. We are committed to the achievement and maintenance of excellence in education, research and health care for the benefit of humanity.

–Dr Prathap C. Reddy

Founder and Chairman of
Apollo Hospitals Group

Total Health is the creation of the 'Healer', Dr. P.C. Reddy, Founder and Chairman of Apollo Hospitals Enterprise Limited (AHEL) and, indeed, the founder of corporate health in India.

Total Health has been created by him with the aim of giving back to society all that he has got from it. It showcases what a powerful tool Corporate Social Responsibility (CSR) can be in the building of a nation, if channellised with a sense of purpose and carried out earnestly.

Dr Mandip Singh
Chief Advisor, Total Health
(A CSR initiative of Apollo Hospitals Enterprise Limited)

Total Health is the dream of Apollo Hospitals Founder and Chairman Dr Prathap C. Reddy, which was transformed to reality in 2013 to provide an integrated rural health care service delivery network in Aragonda village, with the objective of creating a healthy and happy living environment through prevention and management of diseases and addressing other community development initiatives in a holistic and integrated manner.

Dr Subbanna Jonnalagada, MD, DNB
Director (Medical & Project), Total Health

Process Evaluation of Total health, A Corporate Social responsibility of Apollo Hospitals Enterprises Limited.

This report is the culmination of process evaluation of CSR interventions of Total Health in Thavanampalle Mandal of Chittoor District, Andhra Pradesh. Poverty Learning Foundation (PLF) undertook this evaluation between March and May 2019.

Core Evaluation Team
Prof. S. Vijay Kumar, Mr N. Narasimha Reddy, Ms Sree Prudhvi and Mr N. Saidulu

Case Studies Documentation
Dr Sundar Kompalli

Text edit and Design by New Concept Information Systems

Photo curtesy: Ms. Bhavana, Apollo Total Health.

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PLF Poverty Learning Foundation, # 305, 3rd Floor, 6-3-1099/1100, Babukhan Millennium Centre, Somajiguda, Hyderabad 500082, Telangana, India

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This report is the product of several interviews and focus group discussions with various levels of stakeholders in the field has reflected on their experiences with the interventions of Total Health. During the evaluation stage, members of Total Health team have participated in meetings, and shared insights from their work on CSR interventions.

The study benefitted with the technical insights from Sri. SP. Tucker, IAS (Retired) and Chairman of Poverty Learning Foundation for his insights during the study.

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The conclusions and recommendations in this report are based on field-level observations, and do not reflect the views of the Total Health programme and its management. PLF does not hold an institutional view on any subject.

Summary

This process evaluation of the Total Health programme in Thavanampalle Mandal of Chittoor District, in Andhra Pradesh, explores the relevance, significance, and sustainability of different interventions under the project.

Background

More than 70 per cent of India's population resides in rural areas scattered over large geographic regions, with deficient to moderate living standards. The Apollo Group of Hospitals' (AHEL) Corporate Social Responsibility Programme, named Total Health (TH), endeavours to combat these challenges by actively understanding critical societal needs and addressing them. Dr Prathap C. Reddy, the charismatic Founder-Chairman of the Apollo Group of Hospitals, created space under AHEL's CSR in 1913 to establish a comprehensive programme called Total Health to meet the societal needs of 195 villages of Thavanampalle Mandal, of Chittoor District, Andhra Pradesh. The programme's focus is on health; livelihoods; lifestyle modifications and infrastructure development.

Since its formation in 2014 to date, i.e. 2018, Dr Reddy has bestowed about ₹180 million (equal to US $ 2 million) for these multi-sectoral interventions.

Methodology

Largely qualitative research methods drove this evaluation. A semi-structured pre-tested questionnaire, a checklist for Focus Group Discussions (FGD), and another for documenting observations are the essential data collection tools used during the fieldwork. Besides, specific case studies were documented to highlight success stories in line with socio-economic impact/ benefits to stakeholders/beneficiaries.

Findings

Health Interventions

The community perceives subsidised and quality health services, with the opportunity of early detection of disease resulting in minimised out-of-pocket expenditure on health care, as the most helpful services, particularly in the field of vascular hypertension and diabetes mellitus.

The AYUSH clinic established under the programme for treating chronic ailments through Panchakarma Procedures (PP) and universal immunisation process through Swarna Bindu (SB) Prashant, can be listed as a model under CSR for providing traditional medicine integrated with contemporary medicine at an affordable cost without compromising on quality.

The innovative concept of Nutrition Centres for providing supplementary nutrition services to prevent anaemia and malnutrition among pregnant and lactating women and their children, ensuring regular ante- and post-natal check ups, have resulted in no maternal and infant deaths among the registered women in the mandal. Also, yoga under the supervision of trained instructors for the women attending the nutrition centres, to facilitate normal delivery and promote post-natal health, is a unique model in health services, which is giving excellent results.

General health screening is another health interventional measure being implemented, which is leading to detection of diseases at an early stage before any symptoms become noticeable. As a part of this programme, Total Health is conducting eye camps, providing spectacles, facilitating intraocular cataract lens (IOL) surgeries, and referring individual cases to the District Microscopic Centre (DMC) in Apollo Aragonda Hospital.

On Saturdays, non-communicable diseases (NCD) camps are conducted in the premises of the AYUSH clinic, providing health services to diabetic and hypertensive patients. It is a cost-effective case management system with appropriate referral, follow-ups, prevention and early detection built into the program.

The Apollo Group, has world-class quality expertise in cancer screening and treatment, and thus enables Total Health's cancer-screening camps to identify and provide health services to the patients with several types of cancer at an early and treatable stage when the disease is largely asymptomatic and treatable.

Total Health conducts school health camps once a year in all Zilla Parishad schools and Anganwadi centres, focusing on general health screening, including visual disorders, skin diseases, diseases of cardiovascular system, ENT, and oral and dental hygiene. Referrals are ensured for proper medication/operative procedures, including advanced surgeries and follow-ups.

The Day Care Centre and Geriatric Nutrition Centres operated by Total Health are some of the best philanthropic models to provide geriatric care to those who are above 60 years of age and have insufficient support from their family and society. The day care centre located in the AYUSH clinic, besides providing nutrition and medical care, also provides recreational services and gainful employment for the elderly.

Livelihoods Programme

Dr Reddy has a vision of developing livelihoods and entrepreneurship programmes through skill training to the communities, particularly women, to empower them to overcome social, economic, and environmental challenges. In this model, Apollo Total Health has introduced a skill training centre where women are trained in manufacturing jute products and apparel making, and the youth are provided refrigeration and air-conditioning courses (R&AC).

The skill centre has state-of-the-art facilities with sufficient infrastructure, machines and materials, and, more importantly, a safe working environment for women attending this course. To train the youth in the R&AC course, Total Health has set up a professional collaboration with Blue Star Limited.

On completion of the training, some of the women trained in jute and apparel products are employed in-house, while others establish their own enterprises. Similarly, those who complete their training in R&AC course, are facilitated for placements in various business establishments. The project's skill centre is a pioneering model that illustrates the ability to empower the society in a self–sustaining and replicable mode.

Polyhouse farming is another flagship programme of Total Health. Giving due importance to the benefits of polyhouse farming being promoted by the government, Total Health sensitises the farming community to this concept of farming, encouraging them to adopt this method,

as also drip irrigation and a shift to less water-intensive crops. Though it is only a year old, the polyhouse initiative has already shown profitability.

Lifestyle Modification

Yoga and sports are being promoted in the mandal to ensure lifestyle modification to battle the scourge of non-communicable diseases (NCDs). The community is reaping significant benefits by this endeavour, by way of significant improvements in mental and physical health. Community members are trained by Total Health yoga instructors and practise yoga regularly to address ailments such as high or low blood pressure, diabetes, and back pain, for which they previously used to undergo extensive treatment at the hospitals with little benefit and huge out-of-pocket expenditure.

Infrastructure Development

Total Health has also established potable drinking water plants (initially RO and currently Rapid Sand Filtration plants) and, in conjunction with the Gram Panchyats, individual household latrines; provided infrastructure support to schools; carried out plantations along roads; and installed solar street lights along public streets with support from Philips India Ltd. These interventions are well appreciated by the community.

In summation, it would be in order to state that driven by the zeal of Dr Prathap C. Reddy, Total Health has established a corporate social responsibility model for other corporates to emulate. It would help address the global health challenges through investment in health and economic development among the rural and semi-urban societies of the nations in an affordable, sustainable and replicable model and strengthen the on-going governmental schemes in these fields.

Section 1 Background

1.1 Context

Rural and semi-urban societies cannot afford to overlook the role of health care in their quest for growth and development. Health care is an essential component of any economy. Reliable health-care systems make for a healthier workforce for an array of industrial and agricultural requirements, and enhance a community's level of participation and quality of life.

With this in mind, it was in the year 2013 that Dr P.C. Reddy, the visionary and Founder-Chairman of the Apollo Group of Hospitals, launched the Total Health Foundation with the objective of providing 'holistic health care' (womb to the tomb) to the community in Thavanampalle Mandal of Chittoor District under AHEL's CSR arm.

Since inception, the interventions of Total Health have strived to achieve the lofty goal of a healthy and happy living atmosphere through promotion and protection of health, prevention of diseases, and provision of a sanitary living environment. It has also focused on empowering women and the weaker sections of society to build their identity within the society.

The health interventions envisage identifying diseases at an early stage through screening, and facilitating and providing timely treatment to maximise the social and economic benefits for all categories of stakeholders.

The empowerment interventions mainly focus on empowering women with skill development so that they improve their capabilities and enter into entrepreneurship, and thus build their social and economic strengths.

Thus, in line with the vision and mission of Dr P.C. Reddy, Total Health is investing in health, livelihoods, lifestyle modifications, and infrastructure support in Thavanampalle Mandal. In each sector, the following interventions are in operation –

Health: Mobile clinics, satellite clinics, AYUSH, nutrition centres, general health screening, school health camps, geriatric care, NCD camps and cancer-screening camps.

Livelihoods: Skill training centre and polyhouses

Lifestyle Modifications: Yoga and sports

Infrastructure: Water and sanitation, potable water plants, individual household latrines, infrastructure in schools, solar street lights and tree plantation.

Most of these interventions started during the year 2013-14 and are now nearing five years' duration. The management of Total Health planned to independently assess and understand the process of design, delivery, and outcomes of these interventions, to carry out any mid-term corrections if required. Thus, Poverty Learning Foundation (PLF), a think tank specialising in monitoring and evaluations, has been engaged to take up the process evaluation and document the effectiveness and learnings that may be used for future decisions.

Accordingly, PLF took up a systematic process evaluation between March and May 2019, using the Oxford Implementation Index (Montgomery) model.

Total Health's mission is to bring health care of international standards within the reach of every individual. It is committed to the achievement and maintenance of excellence in education, research and health care for the benefit of humanity. The goal is to ensure physical, mental, social and spiritual wellbeing, along with ecological and economic upliftment.

1.2 Process Evaluation

The systematic and objective assessment of an on-going CSR interventions, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. The report aims to highlight the programme's interventions and their implementation and the likelihood of achieving their stated goals. This evaluation not only looks at what the programme has completed or delivered to date, but also provides a platform for future directions the programme needs to take in order to achieve its goals.

1.3 Objectives of Process Evaluation

The key objectives of process evaluation are

a. Analyse the results in terms of inputs, outputs, outcomes and impact by assessing the
   (i) Coverage;
   (ii) Relevance;
   (iii) Effectiveness;
   (iv) Sustainability and
   (v) Replicability, and

b. Provide conclusions and programmatic recommendations.

1.4 Methods and Tools

In process, PLF examined key research questions in detail, along with the research criterion and secondary research questions. Largely, process evaluation was examined as to what went well, and how? What went wrong, and why? For this purpose, the detailed evaluation matrix (see Annexure 1) has been derived from the critical objective of evaluation focusing on indicators, which are relevant and measurable, and specific data sources and data collection methods. The indicators selected are self-explanatory and were designed for enabling scientific deductions.

Mixed methods (qualitative and quantitative) were used in collecting data and information from the key stakeholders. A semi-structured pre-tested questionnaire, a checklist for Focus Group Discussions (FGD), and for documenting the observations were the essential data collection tools used during the fieldwork. Recorded information was collected from official records of the Total Health office. Besides, specific case studies were documented to highlight success stories in line with socio-economic impact/benefits to stakeholders/beneficiaries.

1.5 Data Sources and Samples

The secondary data source was the project's MIS and focused interviews with the TH staff. During this stage, annual reports and baseline survey reports were taken into consideration. The evaluation matrix relied on many of these documents provided by Total Health. After obtaining the list of beneficiaries covered under each one of the interventions, key informants were selected through a systematic random selection process.

1.6 Analysis and Assessment of Results

Data analysis for primary qualitative data and documents followed the structure of the evaluation matrix, using the analytical 'nodes' that were identified during the evaluation (a structured

Source of Information		
Category of activity	**Primary source**	**Secondary source**
Health		
Mobile clinics	Diabctic/Hypertension/gencral patients	TH staff; PHC doctor
Satellite clinics	Diabctic/Hypertension/general patients	TH staff; PHC doctor
AYUSH	Beneficiarics	TH staff; PHC doctor & caregivers of bencficiarics
Nutrition centres	Pregnant & lactating women	TH stall, AWW, & SHG women
General Health Screening	Bencficiarics	TH staff; PHC doctor
School Health Care	School Children	TH staff, PHC doctor & Parcı
Geriatric care	Elderly people	TH staff, Caregivers of clder
NCD camp	Paticnts	TH staff
Concer screening camps	Patients	Doctors & TH staff
Livelihoods		
Skill Training centre	Women	TH staff
Poly House	Nil	TH staff, Horticulture engine & Horticulturc Officer
Lifestyle Modifications		
Yoga	Women and men registered	TH staff
Sports	Students	TH staff
Infrastructure		
Water and Sanitation	Beneficiaries	TH staff, Community leader
RO Plants	Women	TH staff, Community lcader
Individual House Hold Latrines	Houschold members availing the benefit	TH staff
Infrastructure in Schools	Students	TH stall, School Headmistre! and Teachers & MEO
Plantation	School staff/Police	TH staff, Community leaders Public
Solar street lights	Public	TH stafl, Community leader: Public

approach as well as an unstructured approach to analysis), to code the evidence collected. Six specific case studies were gathered to flag the benefits as perceived by the beneficiaries.

1.7 Relevant Stakeholders Consulted

With their consent (as per evaluation ethics), relevant stakeholders were involved in the evaluation process to identify issues and provide input for the evaluation. Consultations with the Total Health team and different categories of stakeholders were also carried out.

1.8 Limitations

While the four evaluation criteria – relevance, effectiveness, sustainability and replicability – and questions pertaining to them offer answers of interest to the Total Health, the scope of the evaluation is limited in two ways due to data and resource constraints.

a. Evaluation criteria cannot explore the impact: The DAC criteria usually include an assessment of impact, but this was excluded from the scope of this evaluation because the evaluation is being carried out ex-post without the necessary data to assess impact rigorously. The limitations of data, particularly on availability of stakeholders who have utilised the interventions, and the lack of an active counterfactual group either in time (e.g., before the Total Health interventions) or in space (e.g., in similar districts) meant that impact evaluation was not practicable. Our approach to effectiveness was, therefore, perceptions about the impact of the Total Health interventions on socio-economic outcomes, without a rigorous assessment of the contribution of Total Health interventions on impact-level variables.

b. Evaluation questions cannot answer rigorous comparisons: Many of the evaluation criteria indicate asking a question about the performance of the Total Health interventions in comparison with another service. For example, an efficiency question could ask how efficiently the Total Health interventions reduced poverty, or improved health conditions, or benefitted children in Anganwadi centres and so on in comparison with government interventions that tried to achieve similar outcomes.

1.9 Ethics and Standards

The PLF approach to the evaluation was based on the evaluation standards set by Oxford Implementation Index (Montgomery). It underpins our approach to ethics, which is also governed by PLF's own Institutional Review Board (IRB). We also adhered to the reporting standards. The peer group reviewed the first draft and accordingly, revisions were made in the final report.

1.10 Quality Control

Quality control was exercised throughout the evaluation process. Depending on the evaluation's scope and complexity, quality control was carried out internally along with a reference group comprising two senior PLF team members and three senior Total Health team members. Quality control adhered to the principle of independence of the evaluator. The evaluation cross-validated and critically assessed the information sources used and the validity of the data, using a variety of methods and sources of information.

Section 2 Health Interventions

This section mainly describes the inputs, outputs, outcomes, and impact of the interventions mainly focused on health. In this process, the design and delivery of the health interventions were assessed. The key focus was on relevance, coverage, effectiveness, efficiency, sustainability and a chance for replication, analysed through the CSR lens. This section focuses on interventions carried out in the health domain of the Apollo Total Health CSR programme.

> **All people are not born equal, at least in their circumstances. But in the medical profession, you are obliged to offer everybody equal care. You can't cut corners just because a patient is poor, To me being humanitarian means doing the best I can- and that means delivering the best health care.**
>
> Dr P.C. Reddy

Health

Access to quality health care facilities is one of the biggest challenges in rural areas. Many rural people are caught in a web of poverty, ill health and a low-productivity downward spiral, and hence meeting the health expenditures is one of the catastrophic challenges for most of the low-income families in a rural setting. Government schemes providing health care and health insurance cover to the poor seem to have been of little help. The out-of-pocket expenditure of households in rural India has shot up, as brought out by a study conducted by Prayas, a not-for-profit organisation from Chittorgarh in Rajasthan, along with Oxfam India.

Giving due importance to the quality health care for rural communities, Total Health has invested in mobile clinics, satellite clinics, nutrition centres, geriatric care, general health screening, AYUSH, school health camps, NCD camps, and cancer screening. Each one of these interventions has been assessed thoroughly.

2.1 Mobile Clinics

The health care system of Total Health has transformed its care delivery model to increase health-care access and improve health outcomes. Mobile clinics (MCs) are an innovative model of health-care delivery that is helping to alleviate health disparities in vulnerable populations and individuals with chronic diseases. Total Health has introduced two mobile clinics during 2014 in Thavanampalle Mandal and is sustainably managing health care and promoting preventative health. The model is successful in improving outcomes among communities disenfranchised from traditional health care.

Mobile clinics are providing diagnostic and treatment services to the people and, more specifically, for those having hypertension and diabetes. Both these silent killers are significant contributors to the burden of chronic non-communicable diseases in Thavanampalle Mandal. The first mobile clinic was launched on 4 December 2014 and the second mobile clinic on 19 November 2016.

The aim of this activity is to ensure proper awareness among the public regarding preventable diseases, more specifically hypertension and diabetes, and encourage those who are already taking diagnostic services for these diseases to adhere to their regular treatment.

2.1.1 Design

Necessary infrastructure, including drugs and supplies inventory, is well maintained. The mobile team comprises a medical officer, a staff nurse, a

laboratory technician and a pharmacist. Each clinic is scheduled to visit two villages every day (from Monday to Saturday) with fixed timings:
9.30 a.m. to 1.00 p.m. in the first village
2.30 p.m. to 5.00 p.m. in the next village.

Identified patients from neighbouring villages are mobilised by the volunteers to the village where the mobile clinic is stationed. Each of the mobile clinics offers the following services:

Primary medical care: Basic investigations; pharmacy; health education; referral services, and any other essential services. These clinics are equipped with a medical laboratory and a pharmacy, facilitating appropriate medication to the patients. Since the mobile clinics introduced are under Apollo CSR interventions, the service charges are kept at minimal – medical card and book for ₹5, consultation charges ₹5 and blood sugar test ₹15.

2.1.2 Relevance and Coverage

Services of the mobile clinics are essential in Thavanampalle Mandal, where access to rural health care is limited. Most of the inhabitants are either ignorant of their health problems or negligent of the health challenges they face. The rural health services available are mostly inadequate and exorbitant health expenses often push inhabitants into financial constraints. In such circumstances, the mobile clinic services are highly relevant.

The two mobile clinics are currently providing health services to 92 villages across 32 Gram Panchayats with a population of 35,000 in the mandal. Since its inception, gradually, outpatients' consultations have increased. The details of outpatient consultations of the mobile clinics are in Tables 1A and 1B. Between launching these services in 2014 and 2019 (till February), 26,270 patients have availed the services of these clinics. This indicates the good coverage by the mobile clinics in the mandal.

Mobile clinics are a potential resource to those who cannot otherwise approach a health centre for the necessary health check-ups. I was fortunate enough to avail medical tests at the right time at this centre, where my disease was diagnosed. Without these services, diagnosis and treatment would probably have been delayed, and that might have resulted in complications, the attending doctor told me, and resulted in disability and a huge financial burden.

–One of the patients under diabetes treatment.

They cover some of the remote areas of Thavanampalle Mandal, where people are not able to access health care.

2.1.3 Effectiveness

Mobile clinics are gaining popularity among the people, particularly those who wish to find out the status of their health. Apart from regular services, doctors in both the mobile clinics counsel the patients who have been identified with diabetes and/or hypertension. Family members of patients are also counselled during the visit, along with the patients. This is another likely factor behind a more significant number of people availing of the clinical services.

Outpatient records for individual patients are well maintained, with up-to-date documentation with initial and repeat assessments. Standard operating procedures (SOPs) for diabetes and hypertension are in place. The patients' rights are protected, and confidentiality is well maintained. Care of patients is guided by standardised guidelines.

To understand the satisfaction[1] levels of patients and feedback on the services, 18 beneficiaries (patients), who are availing the services in mobile clinics, were interviewed. All these beneficiaries

[1] 'Patient satisfaction is an indicator of how well the patient is being treated at your medical practice. The "how well" refers not only to the quality of care but also to how happy a patient is with the treatment he or she received. It is a measure of care quality and gives healthcare providers valuable insights into various aspects of health care, including the effectiveness of their care and their level of understanding.'

were under medication for hypertension and/or diabetes. The study used a simple two-point scale model (Satisfied; Dissatisfied) to minimise the interview time. The outputs of patient satisfaction provide a window of opportunity for further improvement, by appropriate decision-making, in order to meet some of the patients' unmet expectations and provide benchmarking for mobile clinics.

Information in Fig. 1 shows that overall, 85 per cent of respondents expressed their satisfaction with the services in mobile clinics. All respondents said that they are satisfied with the behaviour of doctors and nurses – the two staff members in the mobile clinics having direct contact with the patients. Close to 95 per cent of the respondents were satisfied with the counselling, medical tests, service accessibility, and location of the mobile clinics operating in the villages. Though 80 per cent of the respondents expressed their satisfaction with prior information about the visits of the mobile clinics, a few expressed the need for proper monitoring of this issue. Almost 60 per cent were satisfied with the cost of the services; however, few showed dissatisfaction. This category of respondents compared the cost of the medicines between the PHC and 108 services run by the government, where the medicines are provided free by the state, and the mobile clinics run by Total Health.

This mobile clinic is very helpful to aged patients like me, who are unable to travel long distances. These doctors also charge me a minimum amount compared to what I have to spend if I travel to Chittoor. I am very grateful to Apollo doctors for treating me at my village itself.

–Mr Jayaprakash
aged 76 years.

A few expressed their concerns on the timings of mobile clinics. They said that during the peak agricultural season, the timings of the mobile clinics do not meet their requirements as most of them are busy with agriculture operations during that time. The introduction of the volunteer system to provide prior information to the community about the visits of mobile clinic and about follow-up services is one of the most appreciated practices. However, it appears that the limited number of the volunteers is a limitation of this facility.

A summary of the FGD with patients reports an increased sense of self-confidence and the ability to manage their hypertension and diabetes. Most of the patients and their caregivers appreciated the counselling, advisories and proper referrals. Another essential point flagged during the FGDs is the trusting relationship between clinic staff, the patient, and the caregiver, motivating patients to adopt healthier behaviours.

Perceived outputs from FGDs further confirm a spiral impact: trusting relations between patient and staff motivated the patients to medical adherence, increased self-confidence, avoided further services in hospitals, and saved money due to early detection of the problem. Because of the regular follow-up checks, the stress levels have come down, and most of them said that they are participating in regular social events and economic activities. Apart from taking their prescribed medicines, their daily routine in life has not changed. These beneficiaries are attributing these benefits to having the services of mobile clinics of Total Health at their doorsteps.

Many of the patients have access to better primary health care and better medicines at a subsidised price and very nominal consultation fees, unlike previously when they had to travel long distances and spend more resources to access better facilities. Because of the services available in the villages, the additional expenditures have drastically comedo wn. About 90 per cent of the respondents said that utilising the health services in mobile clinics has helped them to reduce their out-of-pocket expenditure on medical consultations, transport, and cost of medicines.

Another advantage seen by the beneficiaries is better awareness and, most importantly, early detection of diseases and availability of a reliable system for treatment (consultation, treatment and follow-up). Most of the beneficiaries said that early detection of diabetes and hypertension has helped them immensely in timely treatment and avoiding health complications that might have led to high medical costs. There has also been an increased patient confidence as they feel that personal care is taken of them and there is a proper referral system in place.

Patient–doctor relations and notably increased confidence level among patients is leading to a long-lasting positive psychological impact on their mental and physical well-being. It is one of the factors ensuring regular adherence to the treatment. They feel that the waiting time has also reduced in comparison to the PHC.

A mechanism for defaulter retrieval is in place, if the patient is absent on the due date, either through a phone call or house visit. If specialist care is required, the patients are referred to Aragonda Apollo hospital.

The records maintained include Excel data of patients, NCD card and OP book, which have been uploaded in to the software. Other protocols, such as cleanliness and disposal systems are in place.

Reducing health care costs/expenditure by patients with hypertension, diabetes, and also other health issues is the basic focus of Total Health. Mobile clinics have the potential to offer several cost-saving benefits to the health-care system, by way of promoting earlier patient care initiation; improving patients' ability to self-manage their condition; avoiding emergency visits and hospital admissions, and improving the quality-adjusted life years of beneficiaries. In this way, mobile clinics demonstrate cost savings by reducing unnecessary visits to the hospital for further treatment.

2.1.4 Sustainability and Replicability

Health care systems around the world are in the process of transforming their care delivery model to increase health-care access and improve health outcomes while decreasing the burden of health-care expenditure. It would thus be in order for other CSR initiatives in the health field to adopt the innovative interventions being implemented by Total Health by way of mobile clinics that sustainably manage diabetes, hypertension, promote preventive health practices and improve health outcomes among communities disenfranchised from health care. This model can be replicable in neighbouring mandals and indeed in most parts of rural and semi-urban India where people with similar needs are residing.

2.1.5 Recommendations

A patient's charter with well-defined rights and responsibilities are essential to have proper monitoring and medical audits.

Functioning of community volunteers needs strengthening with a monitoring mechanism. A non-negotiable work flow chart should be developed to ensure maximum number of patients adhere to prescribed follow-up visits.

The linkage between the mobile clinic and AYUSH should be further strengthened. Deserving cases could be referred to AYUSH, where additional health services can be offered to the patient in an affordable manner.

2.2 Satellite Clinics

Total Health is running satellite clinics which provide the essential primary medical health care services for a population of 8000–9000 in the vicinity of 7–10 gram panchayats with a radius of 10–15 kilometres, to serve the needs of individuals with NCDs and other medical ailments.

2.2.1 Design and Activities of Satellite Clinics

The first satellite clinic of Total Health started on 28 June 2015 in Thodathara village and the second satellite clinic started on 6 May 2016 in Thavanampalle village. Both satellite clinics have necessary outpatient health care facilities and offer services with a minimum fee of ₹10 for the first visit and ₹5 for subsequent visits. Total Health has kept the charges at affordable prices. Along with sufficient infrastructure, each clinic has a doctor, a staff nurse, a pharmacist and a lab technician. An on-site specimen-collecting laboratory for the convenience of clients has also been structured into the basic design of the satellite clinics. The job responsibilities of staff are well defined.

'After the launch of satellite clinics, 'people stopped going to RMPs and also stopped using self-medication, which is very common in rural areas. Now most people are visiting satellite clinics for health services.'

–Sarpanch, Aragonda GP

2.2.2 Relevance and Coverage

Satellite clinics are another innovative intervention, which are providing user-friendly general health services to bridge the gaps in rural health care. These two satellite clinics offer a solution to geographic disparities in health care. Both the clinics are strategically located, with easy access, for the population in the peripheral areas who are often neglected by most governmental schemes. Though a Primary Health Centre is functioning in the mandal, most of the people in these areas are not able to avail its services due to its location.

Before the establishment of these satellite clinics, people used to approach RMPs (registered mediccal practitioners) who have inherent limitations in their practice of medicine. Since it bridges the gap in health services, it is considered as a relevant model of intervention for this mandal.

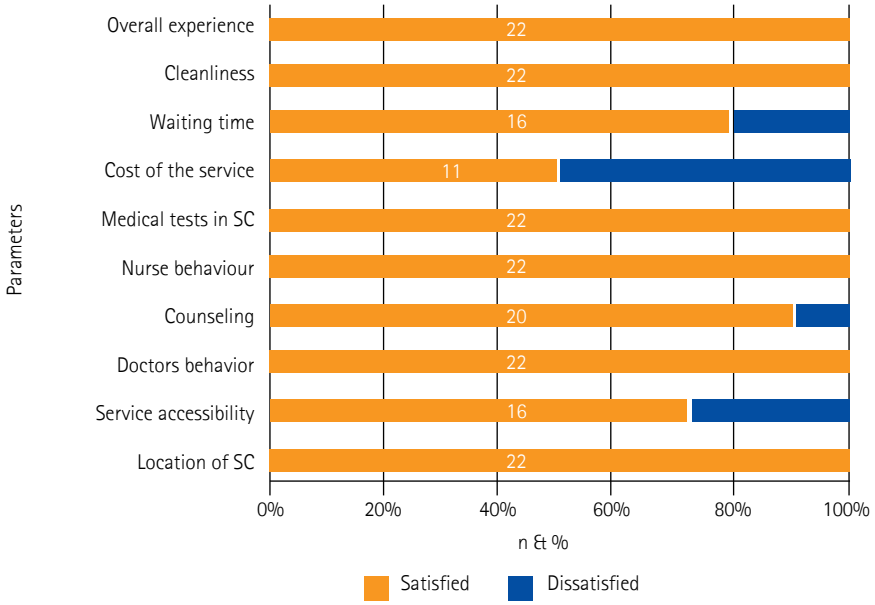
The clinic in Thodathara village covers 20–25 villages, and the other clinic in Thavanampalle covers 25–30 villages. People from 195 villages, including hamlets in this mandal, access these two clinics for health services. In this fashion, the coverage is 100 per cent. The timings of the satellite clinics are from 9.30 a.m. to 1.30 p.m. in the first session and 2.00 to 4.30 p.m. in the post-lunch session in the villages.

2.2.3 Effectiveness

Beneficiaries expressed their satisfaction with the services being provided and said that doctors and paramedical staff were very courteous and listened to their problems. During process evaluation, 22 beneficiaries were interviewed. All the beneficiaries stated that they were satisfied with the services, the behaviour of the doctors and nurses, the location of the clinic, and the cleanliness. Like with mobile clinics, here also doctor-patient relations are well maintained. It is the main factor attracting the clientele to avail the service.

All the respondents expressed their satisfaction on cleanliness, investigations, behaviour of the staff and location of the satellite clinics,. About 50 per cent of the respondents expressed satisfaction with the cost of treatment; however, the remaining half expected more by way of subsidies on medicines. They compared the availability of free medicines at the Primary Health Centre with the TH facilities, where a small payment had to be made. But they did acknowledge

Fig 1: Beneficiary Satisfaction (n22)



that availability of medicines at the government resources was not constant. Two of the respondents were not satisfied with the counselling, and the reason expressed was that the doctors are in a hurry to finish their job and move to the next client. Some of the respondents perceived that the doctors must be under pressure to meet their daily target and thus were not able to give more time for counselling.

Despite the above limitations, the respondents, who had undergone one or two counselling sessions in satellite clinics, were well aware of their disease and importance of regular treatment. Doctors had informed the diabetic patients about symptoms of hypoglycaemia, and complications and the need for immediate action to be taken in case of onset of the hypoglycaemia. Credit needs to be given to the staff of TH for explaining about the disease and its consequences, which is so essential to sensitise the patients and ensure attendance of regular follow-up services, including referrals for specialist care when required.

Outpatient records for the individual patient are well maintained with up-to-date documentation, including initial assessment and repeat assessments. The SOPs for diabetics and hypertensives are in place and are being followed. Patient and family education (counselling) is being provided. The laboratory is following essential safety requirements.

Management of medication (MOM) is in place. Storage of drugs, prescription, dispensing, and administration of medications are carried out as per prescribed norms. The mechanism for defaulter retrieval is in place if the patient is absent on the due date, either through phone call or house visit.

Facility management and safety (FMS) is being maintained. There is a provision of safe drinking water, electricity and toilets.

2.2.4 Sustainability and Replicability

Though satellite clinics cannot replace the health services of government-run primary health care, the outreach, follow-up services, and medication are well received by the patients. In this way, satellite clinics are another model that has sustainability and replicability in other areas.

It is pertinent to note that the satellite clinics are providing 'people-oriented services' as perceived by the beneficiaries. The staff not only deal with treatment of the disease but give due time and effort to deal with the individual's psychological and spiritual needs, while respecting their identity, and their beliefs. Outreach, coverage, and quality of care are good.

2.2.5 Recommendations

The present data collection system needs to be revamped to capture the data on measuring effectiveness. This is possible through an inbuilt measure being incorporated in the MIS.

To maximise diagnosis and care, it is essential to introduce diabetic foot care. Assessment could include gait assessment, and inspection of the feet.

Periodic eye check-ups are also essential to identify any retinal changes as long-standing diabetes causes these changes.

Strengthening the monitoring system should be carried out. Regular medical audits in line with standard procedures, defined patient charter, and patient and family rights and responsibilities should be built into the monitoring system.

Licenses and statutory obligations, for example 'no objection certificate' from the Chief Fire Officer should be ensured.

Patient and family education (counselling) needs to be documented in the individual patient records.

Check list for laboratory safety requirements should be prepared and displayed.

Functional grievance redressal committees should be set up.

Fire extinguishers should be installed in both the clinics.

Continuous Quality Improvement (CQI) – the key indicators to monitor the processes and outcomes should be defined.

Regular medical audit is one grey area, which should be immediately attended to.

Annual action plans with the activity targets should be drafted to measure yearly achievements.

2.3 AYUSH

The basic approach of the AYUSH system on health, disease, and treatment is holistic. Hence, Total Health has adopted AYUSH as one of the pathways to provide better health care to the individuals. In this process, yoga has been integrated into the health care delivery system. The primary aims of designing an AYUSH programme are to: provide low-cost services in far-flung areas; best and affordable care to elderly; and address tobacco and

drug abuse, common in the area. Being more acceptable in the local populace and having fewer side effects, AYUSH is particularly effective in lifestyle diseases such as diabetes and hypertension.

In keeping with the vision to bring about integration between the allopathic system of medicine and AYUSH in Total Health for providing holistic health care services to the community, an AYUSH wing was created at Apollo Hospital Aragonda in November 2015 as a pilot project. Later it became a component of health intervention of Total Health and is now located in a rented building. The AYUSH clinic provides a comprehensive, holistic health-care facility for the rural community in an integrated manner through the Indian system of medicine (AYUSH), along with the allopathic system of medicine.

2.3.1 Design

The AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) programme is designed with linkages to the outreach services of mobile clinics, satellite clinics and the mandal-level health-care programme, as a referral mechanism to deliver health services to the people identified with diabetes, hypertension, osteoarthritis, smoking and alcohol consumption, obesity and dermatology related health problems.

To deliver these services, two doctors who are trained in administering this system, along with back-up support of three nurses and front-line health workers, have been included in the staff. The strategic location of the centre within Aragonda town is an added advantage for the public wishing to avail services. While designing the service, appropriate care has been taken to provide gender-sensitive privacy. A proper inventory system has also been established to manage drugs.

2.3.2 Relevance and Coverage

Modern health-care facilities, while being largely very professional, are costly, and are likely to have a significant impact on family budgets, and are also not readily available to the rural/ semi-urban and the underprivileged societies. In such a scenario, the AYUSH clinic brought into functioning in Aragonda has great relevance, and is a tribute to the vision of the Chairman of Apollo Hospitals. The AYUSH therapies can add a new dimension to the health care system in the prevention of disease and the treatment of clinical conditions and chronic ailments. The core objective of this centre is to manage lifestyle disorders, such as obesity, diabetes and hypertension, which are growing exponentially in the mandal as also in other parts of India.

The centre provides services to the entire mandal, and is gradually gaining acceptance. The statistics of of clients who availed the services are as follows: 6187 out-patients; 57 in-patients; 3175 'Panchakarmas' and 6780 'Swarna Bindus'. Data in Table 5 highlights the increasing numbers of users over the years.

2.3.3 Effectiveness

AYUSH is treating chronic ailments of health through Panchakarma Procedures (PP). Through Swarna Bindu (SB) Prashana (Ayurvedic immunisation vaccine) specific immunity is provided against common childhood infections, besides other benefits. It gives a choice of treatment to the beneficiaries.

This centre has facilities for Rasayana Chikitsa (rejuvenation therapy) for senile degenerative disorders. Services under AYUSH are further complemented with yoga and acupressure in managing community health problems.

Care of patients is guided by accepted norms and practices (SOPs) and beneficiaries expressed their satisfaction with the services provided and expressed that doctors and paramedical staff are very courteous and listen to their problems. One of the beneficiaries (female, aged 66 years) who was very satisfied with Ayurveda treatment of her spondylitis has voluntarily arranged for the construction of railings at the main entrance to make it disabled-friendly.

A pilot study on knee osteoarthritis has been carried out in collaboration with the orthopaedic department of AAH, with 60 patients over six months. Among them, 52 who had undergone treatment for chronic ailments of knee, i.e., 87 per cent, responded about their present status. Of them, 32 per cent reported complete alleviation of symptoms; 46 per cent said they had significant pain relief; 8 per cent experienced moderate relief and might revisit the clinics again, while 14 per cent said they did not have much improvement in their status. But even those that did not have improvement, conceded that there was no further deterioration of their health problem after following the AYUSH regime. There were, however, quite a few drop-out cases for various reasons.

Most of the AYUSH beneficiaries are taking treatment for osteoarthritis, rheumatoid arthritis, spondylitis, chronic musculo-skeletal disorders and chronic skin diseases, and a majority are satisfied with the diagnosis and treatment.

Besides, this centre is administering 'Swarna Bindu' to the children in the age group of 0 to 16 years, with the primary coverage of children in the age group 10 yrs and above. As of date, 6780 children have been covered by this programme.

2.3.4 Sustainability and Replicability

The AYUSH centre has created a sense of ownership among the people about traditional medicine and health care. The basic design and the process adopted is a very user-friendly model. As per the available data, the number of users is gradually increasing. AYUSH, complemented with yoga, is gaining popularity amongst the public and comes across as an intervention which

Relief from Psoriasis

Psoriasis is a disease that afflicts many, and allopathic medicine offers little relief from this chronic ailment. Even if symptomatic relief is obtained, cure is mostly elusive in most cases. Ms Vedavalli of Madhavaram village in Thavanampalle Mandal, a 43-year-old mother of one son, contracted the disease on both palms and over her whole body. She suffered unbearable psychological trauma and continuous itching for years. After consulting an allopathic doctor, she took medication for six years without any let-up in her disease or relief in her symptoms. Since she held an Apollo Total Health Card, she attended an eye camp conducted by the medical team. During interactions with the staff she was advised to approach AYUSH and give it a try. The timely advice, along with her and her family's belief in indigenous practices, finally landed her in the AYUSH centre in January 2016. She opted for the 21-day package (₹7000) and underwent treatment. At the end of the treatment she heaved a sigh of relief. Her problem had completely disappeared. There has been no recurrence of the disease. Relief from the chronic disorder made her conviction in traditional medicine even stronger and she has begun actively campaigning for the AYUSH centre. She feels proud that she is one of the brand ambassadors for the centre now and is prepared to shoulder responsibility in taking the message further into society.

is safe, effective, and appropriate to manage individual health problems. The centre is also integrating yoga and acupressure, to revitalise the health of beneficiaries.

The AYUSH clinic, which was initially established as a pilot project, has established a niche for itself in the TH services. The clinic has all the required facilities, with qualified post-graduate professionals of AYUSH. Out-patient records for individual patients are well maintained with up-to-date documentation, including an initial assessment and repeat assessments. It is gradually attracting clients and has scope for further expansion. The AYUSH clinic has the potential to contribute positively to the national health programme by providing traditional and historically proven health-care solutions which are acceptable to the population and at the same time very affordable.

The AYUSH clinic of TH should aspire to become one of the best models under its health initiatives, combining traditional medical practices with contemporary medicine.

2.3.5 Recommendations

Proper awareness should be created among the community about the benefits of AYUSH and availability of such a facility in Aragonda.

Often people think that AYUSH is costly, and that they would have to invest more money, especially for the procedures, and that there are food restrictions, which may not be possible to follow. Such perceptions need clarification through proper awareness programmes. Proper IEC material can be developed or taken from the Ministry of Health/AYUSH and used to sensitise the people.

As of now, the AYUSH centre is functioning in Aragonda. There is scope to expand it to other villages by adopting the model of AYUSH sanghas/groups (clubs) in each Gram Panchayat or in a cluster of Gram Panchayats, which support project interventions and ensure the sustainability of interventions.

Establishing AYUSH groups is one suggested option to create knowledge among the people, as well as improving its coverage. To create this model, TH can take the model of the yoga centre, which is already well established. A few selected members from the youth can be trained in specific interventions of AYUSH and use of home-made remedies, supporting people in their yoga practices, devising new communication and awareness interventions.

It appears that adequate referrals are not taking place from mobile and satellite clinics, where an extensive scope exists. It can be addressed by establishing defined co-location of AYUSH doctors and paramedics in mobile and satellite clinics, and Apollo Hospital, Aragonda.

As a part of the AYUSH programme expansion, the promotion of herbal gardens may play a crucial role. Total Health has sufficient land to create such gardens.

It is essential to have fire extinguishers in the clinic.

Another suggestion is to establish similar models in all Apollo Hospitals to familiarise the concept of AYUSH, as well as to increase its outreach.

2.4 Nutrition Centres

An undernourished mother inevitably gives birth to an undernourished baby, perpetuating an inter-generational cycle of undernutrition. Recognising the importance of supplementary nutrition for pregnant and lactating women, TH has brought the thematic concept of nutrition centres to selected villages. The aim is to improve the immediate nutritional well-being of pregnant and lactating women and their infants by tackling the immediate and underlying causes of malnutrition.

Expected results are to ensure the improvement of maternal health, increase birth weight of the child, promote exclusive breast-feeding practices for the infant and ensure 100 per cent institutional deliveries to reduce MMR and IMR.

2.4.1 Design

The primary objective of nutrition centres is to prevent anaemia and malnutrition among pregnant and lactating women and bring down IMR and MMR in the mandal. With this objective, nine nutrition centres have been established where pregnant and lactating mothers, and their children, needing additional nutrition support, are being cared for. The centres are also conducting a pilot study on severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) children. These nutrition centres are located in easily accessible places within the villages, using rented accommodation. Along with supplementary nutrition, yoga of appropriate levels has been introduced for the pregnant and lactating women.

Nutritional support is available to the woman from the time of her enrolment to when her child is 18 months old. A nominal fee of ₹5 is collected from all the mothers enrolled in the centre, which is in turn utilised towards the purchase of materials for the centre. These centres operate every day at a fixed timing (usually between 9:30 and 11 a.m.) and provide nutritional supplements every day, including post-delivery take-home supplementary nutrition. Women avail regular monthly health check-ups at the centre. All the services are provided at no-cost basis after enrolment.

2.4.2 Relevance and Coverage

Adequate maternal micronutrient consumption is especially critical during pregnancy and lactation. Establishing nutrition centres is a highly relevant intervention for mitigating low birth weight, infant mortality and maternal mortality. It is another critical support system, in addition to government-run ICDS centres for malnourished children and anaemic mothers for distributing fortified food to these vulnerable groups. The TH base line study examined the anaemia, SAM and MAM cases in the mandal. Inspite of existing ICDS interventions, anaemia cases were found to be very high. Considering this, establishing nutrition centres is very relevant.

Nutrition centres established in Charala, D. Modalapalle, D. Thadakara, Sarakallu, Gajulapalle and Boyapalle villages cover the services, including ANC care, for 379 pregnant and lactating women. An anaemic pregnant woman in her third month of pregnancy is allowed to enrol in the centre based on the health card issued by the ANM workers. An average of ₹500 is spent per month per head in each of the nutrition centres.

A typical daily schedule of a nutrition centre includes the provision of nutritious food to the women enrolled in the centre and the conducting of yoga sessions. On an identified day, awareness sessions on important health topics such as supplementary nutrition, hygiene, and yoga are conducted for the women. Every month a health check-up is also conducted.

Currently, of these nine centres, five are in operation, and the remaining have been shut down as there were not sufficient enrolments of anaemic women, and SAM and MAM cases.

2.4.3 Effectiveness

This intervention is operating on a need-based model. About 169 children and 149 pregnant women have benefitted from supplementary nutrition comprising-peanuts, ragi flour, eggs, milk, dates and jaggery, with regular monitoring and health check-ups. A snapshot base-line study of TH reports the effectiveness of the intervention. During this base line, the average details of pregnant women (n 149) were weight 50.5 kg; Hb 9.53 gm/dl; and BMI 23.14. After five months of joining the nutrition nentre, the average measurements were weight 57.31 kg; Hb 10.61 gm/dl; and BMI 26.42.

Also, during the base line, 169 MAM children were identified and provided with supplementary nutrition. The results showed that while at the start of the intervention, the average details were: average weight 10.45 kg; height 81.63 cm and BMI 15.8. After five months of supplementary nutrition, these children's average weight had increased to 11.9 kg; height 88.28 cm; and BMI 24.61. These results clearly demonstrate the effectiveness of the programme. Pregnant and lactating women are also availing these services. They are satisfied with supplementary food and have gained in weight, as also have an improvement in their Hb gm percentage.

In addition to the above results, process evaluation has been conducted with one-to-one interviews with 16 beneficiaries (5 pregnant women, 6 lactating women and 5 women with children in eligible age group) and two FGDs. All respondents have expressed their satisfaction with the benefits they have derived from the nutrition centres. This model of 'on the spot micro-nutrient consumption' is helping them to gain weight. In addition to the supplementary nutrients, these beneficiaries were particularly appreciative of being able to practice yoga (as per their pregnancy status) under the guidance of a yoga instructor and also accessing required medical services.

2.4.4 Sustainability and Replicability

The programme started on need-based interventions being introduced. As of now, based on the annual data, five nutrition centres are functional. The micronutrient supplementation has been very cost-effective. Total Health could scale up this model for other villages on a priority basis.

It is one of the successful models for providing micronutrients to pregnant and lactating women and their children aged up to 18 months. It is having a significant impact on reducing anaemia among this category of women as well as reducing SAM and MAM cases. It directly corresponds to SDG goal 3: Ensure healthy lives and promote well-being for all at all ages.

Besides, having a direct impact on their well-being, the yoga classes being offered at these centres are also leading to increased number of normal deliveries without complications.

2.4.5 Recommendations

It is essential to get a certificate from the National Institute of Nutrition for the micronutrients (delivered through eggs; chikki (jaggery mixed with peanuts); dates and biscuits). It is recommended to display the benefits (calories) on consuming of these supplementations in all NCs (preferably in a pictorial form).

As per WHO norms, 600 calories of nutrition and 18–20 grams of proteins are essential for pregnant and lactating women. The same needs to be calculated for the diet provided and displayed.

Required stocks of micro-nutrients have to be ensured for the beneficiaries regularly.

It is essential to ensure high standards of environmental sanitation in nutrition centres, and also beneficiaries should be motivated to adopt high standards of personal hygiene.

The centres being run in rented premises are not all in a very habitable state. These centres need to showcase themselves as models in hygienic practices.

More coordination is required between the nutrition centres of the TH and the ICDS centres running in the vicinity. Between them they should ensure that all eligible women and children in their jurisdiction are covered.

Regular attendance of the members and the yoga instructors should be ensured.

2.5 General Health Screening Camps

Non-communicable diseases (NCDs), especially cancers, are a cause of concern across the globe. Cervical, breast, and cancer of the oral cavity are the three most commonly encountered cancers. Screening for these is eminently feasible, and pre-cancerous as also early cancer lesions detected by screening programmes are amenable to cure in a majority of cases.

Hypertension and diabetes mellitus are the two other NCDs, which have a profound impact on the quality of life of the population and their life span. Appropriate screening tests in the field can detect these and simple algorithms for their complete diagnosis and management can be followed at the primary and secondary health care facilities.

Another critical and neglected problem among women is anaemia, often nutritional. It impacts their ability to work and also increases the risk to their life during life cycle events such as childbirth. It is easily diagnosed in the field setting and is also treatable in most primary health care facilities.

In view of the above, Total Health, under its CSR policy, initiated free general health-screening camps focusing on cancer and non-communicable diseases detection. These are in addition to the other health initiatives operated by TH.

2.5.1 Design

As a corporate responsibility, TH has designed 'free general health screening' on a periodical basis in the mandal. Under this model, screening tests are conducted to detect diseases at an early stage, before any symptoms become noticeable. The intention is to treat the disease early to ensure complete cure and eliminate complications. Those who are identified are supported with suitable medication/procedures on reasonable charges or free of cost when the patient's financial situation warrants. Along with general health-screening camps, TH has introduced eye-screening camps.

To facilitate subsidised health services, TH has given household health cards to 11,888 households, covering a population of 31,553. This offers significant benefits for the families in the mandal. Individuals who access the health services in Total Health as well as in Aragonda Apollo Hospital qualify for availing this facility. More specifically, health cards benefit the economically disadvantaged communities in the Mandal. During the general health screening, people are attending the camps along with health cards and getting free medicines. It is another flagship intervention of TH benefitting a large section of the population.

2.5.2 Relevance and Coverage

General health screening is relevant for Thavanampalle Mandal, as also for large sections of rural and semi-urban populations across India who live in villages and small habitations. Due to their ignorance or inaccessibility of the health services, they are either unable to avail of health services at an early stage or neglect their health problems, till the disease becomes full blown and difficult to manage. Under this intervention, about 3719 people have been covered till December 2018.

During the past six years, four general health-screening camps and two eye-screening camps have been conducted. About 1355 individuals have been covered during the eye camps. Of them, 512 individuals have been provided with spectacles. Nearly 59 have under gone Intraocular cataract lens (IOL) surgery, and 314 been provided with spectacles after doing refraction tests. Of the 3719 screened in the general health camp, 153 have been referred to the Orthopaedic department, 178 to the General Medicine department, 32 to the Paediatrics department and 35 to the Gynaecology department of Apollo Hospital. All the interventions are being provided free of cost.

About 853 patients were referred to the District Microscopic Centre (DMC) established by TH in collaboration with the district health authorities at Aragonda Apollo Hospital under the Revised National Tuberculosis Control Programme (RNTCP). Of them, 61 were found to be sputum positive and referred to the DTO for further treatment, and TH is following them up to ensure medication adherence. Also, four HIV cases have been identified from among them and been referred to the district counselling centre for further management.

2.5.3 Effectiveness

During the evaluation, 50 people who attended a general health-screening camp were interviewed to know their opinion on general health screening. Of them, six had been identified as diabetic for the first time and referred to the NCD clinic. They are on regular treatment for their condition. Four were identified with diabetes and hypertension and are undergoing treatment from a satellite clinic, while another four were diagnosed with other health problems and treated for same. All of them expressed their satisfaction with the health camp and the counselling method of the medical/paramedical staff. Through health cards, they are also availing of subsidised medicines. The only suggestion expressed by many of them was that TH should subsidise the medical costs further.

2.5.4 Sustainability and Replicability

The general health screening camps are benefitting the community hugely and depending on the fund availability TH can have several similar and specialised camps in future to cover other locations of the mandal as also be replicated in adjoining mandals.

This initiative is again a model worth emulating by other corporates/NGOs working in the health stream. Apart from screening and treatment, it is generating awareness among the people on the importance of regular health checkups and maintenance of healthy life styles.

2.5.5 Recommendations

Total Health can plan this intervention regularly (at least once in three months).

Yearly target of health-screening camps and eye-screening camps should be specified to cover all the population and to be able to measure the achievements.

2.6 Non-Communicable Diseases Camps (Diabetic Special Camps)

People with non-communicable diseases, or at risk of developing one, require long-term care that is proactive, patient-centred, community-based, and sustainable. Such care can be delivered equitably only through regular NCD care health systems based on primary health care. People with a non-communicable disease may show no symptoms until the disease has progressed substantially – the first manifestation may be a heart attack or a stroke. Screening of asymptomatic individuals for key risk factors can identify people at high risk and offer the possibility to prevent the progression of the disease. Primary health care is the most frequent entry point for people to the health system and therefore offers the most significant potential to detect high-risk individuals who may be visiting health services for other health reasons.

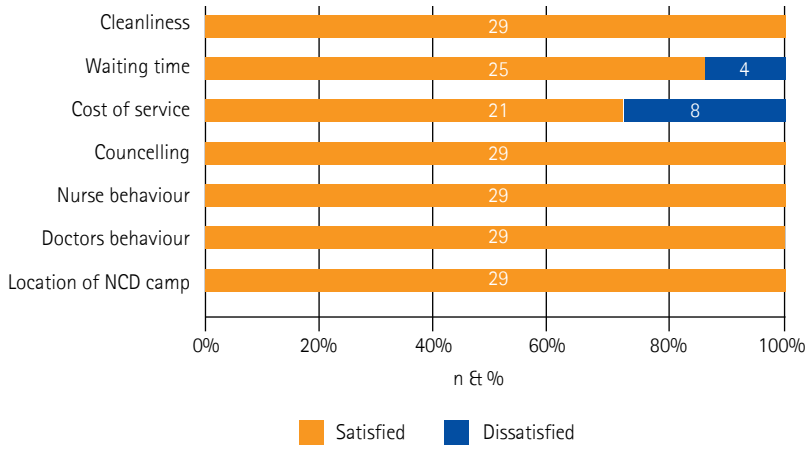
2.6.1 Design, Relevance and Coverage

Giving due importance to NCDs, TH has started special camps on every Saturday in AYUSH clinic premises. The aim is to provide cost-effective case management, appropriate referrals and follow-ups, as also prevention and early detection of disease. During the NCD camps, TH doctors screen the patients and carry out required medical tests. A mobile clinic is present during the NCD camp. Medicines at nominal price or free of cost are provided to the needy. The strategic positioning of NCD camps in the AYUSH clinic offers another advantage by way of sensitisation of patients regarding AYUSH and its benefits. With such motivation, a substantial number are motivated to taking treatment from AYUSH. The NCD camp is following 1792 diabetic and hypertensive patients, who are getting investigations, medications, and counselling. Nearly 2424 patients had undergone HbA1C investigations up to December 2019. The design, strategic location, and coverage are relevant and scientifically sound.

2.6.2 Effectiveness

The programme is valid in terms of giving better health care and patient satisfaction. About 29 patients were interviewed, and all of them expressed satisfaction with the location of the camp, behaviour of nurses, and cleanliness of the camp premises. Eight (27.6 per cent) of the 29 interviewed, however, felt that the medicines were costly, and wanted TH to consider further subsidisation (on further elaboration it was found that their perception of being costly was in relation to the medicines given in the government Primary Health Care centres).

Fig 2: Perceptions of patients visiting NCD camp (n 29)



2.6.3 Sustainability and Replicability

This intervention has the potential for further expansion and sustainability, as it has linkages with mobile, satellite and AYUSH clinics. The doctors conducting these camps felt that the camps were also benefitting the population by way of reduction of tobacco consumption in patients; reduction of delay in diagnosis of their health issues; reduction of the risk of heart attacks, strokes, amputations, kidney failure; and prevention of acute events and complications.

In low-resource settings such as Thavanampalle Mandal, health-care costs for NCDs can potentially drain household financial resources. The exorbitant cost of management of NCDs, including lengthy and expensive treatment and loss of bread winners through associated complications, pushes many families below the poverty line every year. The occurrence of such events can be minimised through these NCD camps.

2.6.4 Recommendations

In view of limited financial capacities of the patients, a revision is suggested on the existing subsidy and pricing of medicines.

By adding a few more frontline health workers, the present NCD camps can further improve their outreach services.

2.7 Cancer Screening Camps

Breast, cervical, oral and lung cancer cases are increasing day by day. Such cancer cases not only increase the disease burden and mortality in society but also lead to financial crises among the families.

2.7.1 Design, relevance and coverage

Having world-class expertise in cancer screening and treatment at their disposal by way of the Apollo hospitals at Chennai and Bangalore, TH regularly conducts cancer-screening camps to identify and provide health services to the patients of several types of cancer, at an early and treatable stage when the disease is largely asymptomatic and treatable.

Such camps have been organised in 157 villages across 30 Gram Panchayats and are yet to reach 38 villages in the remaining two Gram Panchayats of the mandal. The main target is women in the age group of 35–70 years. As of February 2019, about 2829 women have undergone screening tests. Of these, 110 were identified as having probable cervical cancer, of whom 12 were confirmed as having cancer of the cervix and were operated upon free of cost at Apollo Hospital, Aragonda or the District Hospital, Chittoor; 489 were identified with infections and treated; 11 were found with prolapsed uterus and operated upon; and 114 were suspected to be having breast cancer of whom 5 were confirmed with cancer and operated; while 118 were suspected to have oral cancer; however, none of them had oral cancer, as confirmed after further tests.

2.7.2 Effectiveness and Sustainability

The present cancer-screening programme is an effective and sustainable intervention to save lives from cancer. Those who are identified with the symptoms are referred for further tests and free treatment at AHEL's higher centres for cancer. Early detection is essential in the management and treatment of cancer. The programme also ensures prevention by creating awareness and educating the population regarding changes in lifestyle for prevention of cancer.

2.7.3 Recommendations

As the majority of the people do not know about cancer, it is essential to further step up cancer literacy and knowledge programmes during general health camps as also in the mobile and satellite clinics.

Women are initially hesitant to attend screening camps. It is mainly because of the lack of proper awareness. Sensitising them with relevant IEC material may change their behaviour and bring them to the screening camps.

2.8 School Health Programme/Camps

Total Health has taken responsibility to promote the health of school children. Once in a year, school health camps are conducted in all Zilla Parishad schools, MPPS, UPPS and Anganwadi centres across Thavanampalle Mandal.

2.8.1 Design

The school health programme is designed to cover screening, health care, and referrals, emphasising on the cardiovascular system, ENT, and oral and dental hygiene, with medication and follow-ups. Doctors and other paramedical staff are involved in this programme. Students identified with ailments are provided initial medication and, if required, referred to Aragonda Apollo rural hospital for further treatment. For those students referred by the TH to Aragonda Apollo rural hospital, the doctor's consultation fee is waived off and investigations and treatment are free. Required level of support during the school health camps is ensured by Aragonda Apollo rural hospital.

2.8.2 Relevance and Coverage

The school health programme ensures early diagnosis and treatment, besides providing emergency care for illnesses or injury while at school, and appropriate referrals to health care providers, to monitor for and control the spread of communicable diseases. It also imparts

health education and counselling when required. During health camps, children in 69 schools and 65 Anganwadi centres are covered once in a year. These school health camps have covered 5906 school children.

2.8.3 Effectiveness and Efficiency

Teachers as well as the parents expressed their satisfaction with the school health camps and referrals. The critical perceptions of teachers, parents and doctors who participated in the health camps are as follows-

Perceptions of stakeholders		
Teachers	**Parents**	**Doctors**
Early detection of disease, treated on time	Better school attendance	Strategic means to prevent important health risks among children and adolescents
Children able to attend classes regularly	Early detection of disease and treatment	Timely detection and treatment for colour vision disorders, hearing impairments and infectious skin diseases
Complete medical record of children	To some extent saving money on health check-ups	
One way of disease control mechanism		

All those who were interviewed felt that the school health camps by Total Health led to timely detection of ailments/diseases and provision of appropriate treatment; it also helped students to attend classes without any break on account of sickness. Parents are of the opinion that the school health camps help them know the health profile of their children. Since medicines and appropriate referrals are also provided for the ailments detected during the examination, parents are able to save money on this account. Parents further expressed their satisfaction with the programme, as it ensured that their children are able to put in regular attendance. Doctors opined that conducting school health camps was one way of preventing important health risks, for example, vision disorders or skin diseases among school students and of providing treatment.

"We are satisfied with the school health camps of Total Health as the examination is carried out in a systematic manner and women teachers are also screened for cervical cancer and breast cancer"

Teachers of Girls High School, Aragonda

2.8.4 Sustainability and Replicability

The programme, covering all schools in the mandal, is sustainable and replicable as it requires minimal inputs and is also in the charter of primary health services being provided by the state government.

2.8.5 Recommendations

It is essential to screen all the 69 schools and 65 Anganwadis once every year. While the coverage was 100 per cent in 2016-17, it was limited to around 80 per cent of the schools in 2017-18. Also, it was not executed in 12 per cent of the Anganwadi centres due to administrative constraints. The coverage could be enhanced if done in conjunction with the state health services.

"To further improve impact of school health camps, development and growth charts can be introduced during school health screening"

Doctor conducting the health check

It is important to use growth charts to assess the growth and development of the children, especially in Anganwadi centres. Aragonda Apollo rural hospital specialists volunteered to orient the staff in TH on how to use growth charts and analyse the data to identify early malnutrition and take early measures to prevent severe malnutrition.

Information on vitamin deficiencies also needs to be ascertained from the data of present programme. If not available, it needs to be included henceforth in order to know whether it is a health issue among the students of the mandal.

Systematic follow up is required of those students identified with health problems to note the progress and outcomes.

Parents of some of the students who require specialised treatment are not keen to take their children to Aragonda Apollo rural hospital or other referrals suggested. This could be due to their financial situation and a fear of the cost of treatment at such centres. For such category of families, both parents and teachers counselling is essential and free referrals and treatment to be ensured when warranted by the financial situation of the family.

Counselling and follow up of the students identified with suspected ailments to be planned in association with teachers.

To measure the effectiveness, the main question would be 'Is the problem reduced or eliminated as a result of this intervention?' However, at present, it is difficult to measure the effectiveness of this intervention as the outcome indicators are not formulated.

2.9 Day-Care Centre and Geriatric Nutrition Centres

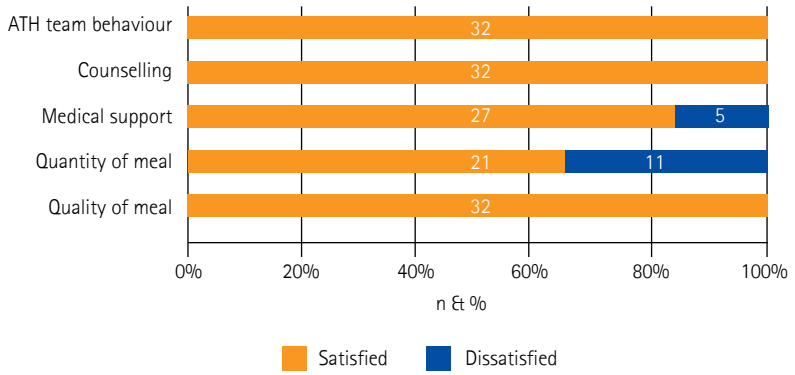
With demographic transition underway in most parts of the world as also in India, the elderly population is projected to rise to 12 per cent of the total population by 2025. It brings social and financial challenges to the fore and puts immense strain on the health system due to a marked shift toward chronic non-communicable and other age-related diseases. Besides, social factors such as fewer children in each family, increased employment opportunities for women, who were traditionally taking care of the elders, rapid urbanisation and an increase in nuclear families, is resulting in neglect of the elderly. A concerted drive is required to focus on geriatric care, including medical and social support to ensure mental, physical, social and psychological well-being of the elderly.

2.9.1 Design, Relevance and Coverage

Recognising this scenario, the geriatric care model has been designed to provide geriatric care to those who are above 60 years of age and have little support from their family. One day care centre located in the AYUSH clinic is providing services to 31 seniors (16 males and 15 females aged 60-plus years). They have enrolled themselves voluntarily between 2015 and 2019. Of these, 10 seniors are getting old-age pension, which is their primary source of living. This day care centre provides snacks, including one cup of tea or coffee, 200 grams ragi malt, 150 grams mixed nuts and four Marie Gold biscuits, besides a nutritious mid-day meal (hot cooked food). Newspapers in vernacular language and simple indoor traditional games for them are also provided at the centre. In addition, routine health checkups and required medication to these seniors is also provided.

Similarly, three other geriatric nutrition centres are in operation – one in Charala, the others in Uppodupalli and Ponnedupalli villages. These three villages were selected based on a household snapshot survey which showed that there were a fair number of elderly people in these villages who required medical and nutritional support. Operational advantages were also kept in mind while selecting the locations. The aim is to provide a nutritious mid-day meal (hot cooked food)

Fig 3: Perceptions of elders in geriatric nutrition centres (n32)



and a health check-up once a month, as also a place to socialise. Arrangements are also on to make facilities for gainful utilisation of their time by making brown bags for which they are given remuneration and these bags are used by TH for dispensing medicines. A total of 147 seniors are availing the services of these centres.

2.9.2 Effectiveness, Sustainability, and Replicability

Seniors in day care centres are regular in their utilisation of the services of the centre, and participate in in-door games, reading newspapers and making some money by way of making brown-paper bags. Most seniors at these centres reported joint pains and other old-age related disorders, which are also attended to.

Seniors attending the day care centres were interviewed to understand their perceptions about the service. All of them expressed their happiness at getting healthy snacks and an opportunity to read newspapers, watch TV and interact with a peer group.

To understand their satisfaction levels, two FGDs were conducted with 32 seniors. All of them expressed satisfaction with the hot cooked meal. About the quantity of the meal, 11 (35 per cent) said that the quantity is enough for a one-time meal but they don't have any support to have food at the night. Hence, they are looking for larger quantities so that they can save some portion for afternoon/night meals. Five (15 per cent) seniors suggested that medical support to address ophthalmological problems and dental problems should also be available.

Overall the seniors availing the services of the centres are satisfied with the facilities provided. The programme is supporting them with their nutritional and social needs to an extent.

2.9.3 Recommendations

In addition to medical support, ophthalmic support by way of providing reading glasses after refraction test/cataract surgery and management of glaucoma may be added.

Section 3 Livelihoods

Along with providing quality health care, Dr Reddy has a vision of developing livelihoods and entrepreneurship programmes through skill training for the communities, particularly for women, empowering them to overcome social, economic and environmental challenges.

This model focuses on training women on making of jute products and apparel, and providing refrigeration and air-conditioning courses (R&AC) for young males. This centre has state-of-the-art facilities with sufficient infrastructure, machines and materials, and, more importantly, a safe working environment for women attending the courses. To train the youth in R&AC, TH has collaborated with Blue Star Limited.

3.1 Jute Products and Apparel

3.1.1 Design

The basic design of this activity was drafted with an aim to provide need-based skills to unemployed uneducated/educated rural women to enable them to take up productive income-generating activities through self-employment. Market surveys are being done at intervals to examine the potential demand for the skills generated and the requirement for upgradation of facilities. In addition, the design includes mobilising support services in terms of credit linkages, marketing and providing placement services.

The skill training programme in tailoring comprises courses designed to train women on making jute products and apparel. The centre was established in 2014 with four master trainers. It has all the required infrastructure facilities with the latest machinery and material related to jute products and apparel.

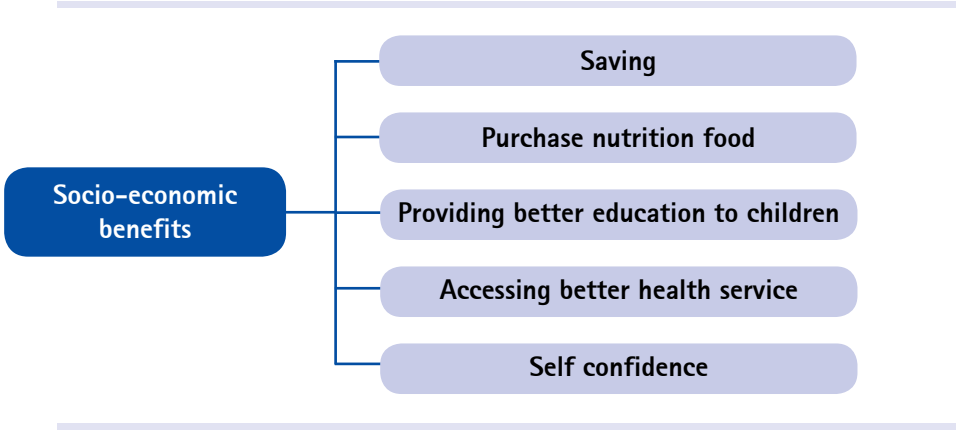
3.1.2 Relevance and Coverage

Since its inception in 2014, around 350 women from neighbouring villages have undergone skill training in tailoring. Of these, 60 women who have been further trained in manufacturing jute products such as jute bags of different sizes, jute folders and so on, and apparel such as shirts, blouses, salwars, bed sheets, pillow covers, etc., have been employed by the centre. They come on voluntary basis and make the products for which they are paid.

3.1.3 Effectiveness

From among the women trained at the centre, 15 women trainees selected randomly were interviewed during the process evaluation. Among the trainees of the tailoring course, four have established a tailoring shop; one is employed as a worker in a tailoring shop; five trainees have been employed internally to work on jute/apparel products, and two trainees are working at home, stitching clothes for family members and community.

The average income earned by trainees who started their own tailoring shop was ₹6786 per month, ranging from ₹3000 to ₹10,000 per month. Those involved in jute production at the centre are earning an average of ₹6000 per month. Three trainees are earning ₹3000 to ₹5000 and two trainees are earning ₹5001 to ₹10,000 pm.



Trainees interviewed volunteered that their skills are fetching direct and indirect benefits. Besides being able to open bank accounts and have savings, they have been able to contribute effectively to the family, by way of providing nutritious food for the family, better education to their children; and having awareness and access to better health services. Further, the trainees felt that with their new skills, their self-confidence levels have increased and they are able to participate in the household-level decision-making processes.

Total Health is exploring different avenues to market the products being manufactured. They are targeting their business opportunities with corporate houses especially AHEL and educational institutions, and are participating in exhibitions. Bulk in-house orders come from AHEL for customised jute bags and folders, and for shirts, aprons, bed sheets, scrubs, etc. In addition, they supply jute bags to local private schools and colleges, e.g., Apollo College of Nursing, Aragonda, Apollo Hospitals, Chennai and Bangalore, and Amara Raja Industries.

The centre works closely with the National Jute Board, Ministry of Textiles, and Government of India. In 2018, the Centre was short-listed for JIDS (Jute Integrated Development Scheme) of GoI.

With some limitations (e.g., business expansion and producing innovative models, due to it being a CSR and not a profit-making model), this activity is effective, as it benefits the trainees economically, and brings about self-confidence in the weaker sections of the society.

The skill centre is successful in not only building the skill capacities of women and the youth but has also generated revenue to the tune of ₹9,57,265 through sale of the jute and apparel products.

3.1.4 Sustainability and Replicability

The present intervention model under the skill centre is not only sustaining itself but is beginning to provide finances for the other initiatives as well. Skill development gives a large scope for the women to improve their socio-economic status and respect within the family and in the community. Women who have undergone tailoring courses are leading a better life compared to their status before their training. Women empowerment is ensured through this training and it should be considered as one of the prime achievements under this CSR model.

3.1.5 Recommendations

Even though the skill training centre's main objective is to train women and support them in improving their socio-economic well-being, the model is offering excellent opportunities to women to generate their own revenue.

To give further impetus to the initiative, it is suggested to have a business plan to improve revenue and recruit more women into the training and working. This will have two benefits: (1) Increase the number of women acquiring skills, improve their living conditions, and (2) The centre will turn into a revenue-generating model which would sustain other initiatives as well.

AHEL in itself has the capacity of procurement of the items manufactured at the centre, which could be mutually beneficial for both. This would also increase the scope to train and employ a greater number of women.

Bringing innovative designs, ensuring quality of the products and keeping in line with market expectations is essential for further growth of the centre.

3.2 Refrigeration and Air-Conditioning Course

3.2.1 Design

The use of refrigerators and air-conditioners is gradually permeating into the lifestyles of the rural and semi-urban communities. Also, there is a large gap between the demand and supply of skilled people who can take up servicing and repair of these devices in these communities. Recognising this need, the management started the R&AC training centre as part of the on-going skill development programmes in the skill training centre. The centre proposes to train interested youth and help them in obtaining suitable job opportunities.

A three months' training curriculum has been started in collaboration with Blue Star Ltd. since 7 March 2018. Blue Star has provided the required technical support and the training models and material for the course. The centre can boast of a state-of-the-art training model with different models of air conditioners, circuits, an experience room and other requisites provided. The trainer has been chosen by Blue Star and is supported by Total Health. The eligibility to join the course is that the interested candidate must be at least 10th standard (pass or fail) and must possess reading and writing skills.

3.3.2 Relevance and Coverage

The R&AC course supports unskilled educated youth of the mandal where 50 per cent of the population is under the age of 25 years. By imparting skills to the youth with outcome-based skill training, the course is generating employment for them. The training centre has trained three batches successfully. From the third batch onwards the training programme has been made residential.

3.3.3 Effectiveness

The trainees from R&AC course get practical orientation through field visits and apprenticeship. One out of the four interviewed had got placement in Blue Star itself, with support from TH, and is earning a salary of ₹8000 per month.

Once the three months' course is completed, the centre provides a tool kit worth ₹7000 to each of the graduating students. They are helped in getting on-job training with dealers at Chittoor, Chennai or Tirupati, where they are provided free boarding and lodging along with a moderate stipend during this period.

A total of 50 students have been enrolled to date in three batches and 39 of them have graduated successfully to date. Total Health, assisted by Blue Star, has provided placement linkages to these students. However, some of them opted to establish their own micro-enterprises or to work on a contract basis, as they preferred self-employment locally or at Chittoor. Currently, two of the graduates have got together to established their own micro-enterprise and are earning around ₹10,000 per month each. One of the biggest achievements of the program is that none of their students trained is currently unemployed. They are either in a job or self-employed.

Thus, R&AC training is effective in terms of bringing educated and unskilled youth on board for capacity-building and giving them scope to establish either their own enterprise or some form of income-generating activity.

Refrigeration and air-conditioning training has great potential to create skills among the youth and promote self-employment/micro-entrepreneurship.

3.3.4 Recommendations

Both TH and Blue Star should have a joint monitoring system to ensure the quality of the training programme.

Staff should be designated for carrying out market surveys to coordinate and support the placements of the graduating trainees.

Section 4 Agriculture – Polyhouse Farming

Polyhouses are climate-controlling structures for diversification of cropping patterns, being promoted by the government. Polyhouse farming is slowly gaining popularity in India as it has a great scope of fetching larger profits for the farming community without undue impact from the vagaries of nature. However, most farmers are not aware of polyhouse technology and of the subsidies being provided by the government to promote this technology. Fruits that can be grown include papayas, strawberries, etc; vegetables include bell peppers, English cucumbers, tomatoes, etc; and floriculture includes carnations, gerberas, marigold, orchids, gladioli, and lilies.

Polyhouses are especially beneficial for farmers with small holdings, who can look to make handsome returns despite their limited acreage. The key benefits are thatplants are grown under controlled temperature, thus there are fewer chances of crop loss or damage due to vagaries of nature; crops can be grown throughoutthe year and will not have to be seasonal; there is less chance of attacks by pests; external climate will not have any impact on the crop; there is high-quality produce; yields are about 5 to 10 times that of the conventional methods of farming; and with drip irrigation water conservation is ensured.

The polyhouse-farming model was initiated in 2018. The total installation cost of the project was ₹20,48,800. The Department of Horticulture, Government of Andhra Pradesh has sanctioned a 50 per cent subsidy for polyhouses, besides money for the first crop, farm pond and store. The Department of Horticulture also provides required technical support and supervision.

Total Health intends to showcase the procedure to be followed in polyhouse farming. The initial crop was English cucumber. The total production cost was ₹22,221 and 5459 kg cucumbers were harvested in nine harvests between May and August 2018 and sold in the market with a total earning of ₹83,054.

After cucumber, production has been shifted to capsicum/bell peppers, which has a better market potential. Production started during December 2018 and in the period December 2018 and January 2019, 2322 kg of capsicum were harvested. The total expenditure was ₹41,400 and the product was sold in the local market for ₹64,211. Another ₹1 lakh is expected with on-going harvests. The project is thus demonstrating profitability in its first year itself.

4.1 Recommendations

To sustain the polyhouse model, it is essential to have a good market potential for the crop in proximity to the production zone. For this, TH needs to explore the local market as well as neighbouring towns.

If a group of farmers can be formed into a cooperative model/progressive farmers group, marketing and interaction among farmers can result in better outcomes as also attain the aim of the project, which is to encourage diversification and switching over to crops which are less water intensive.

Section 5 Lifestyle Modifications

Lifestyle modification involves altering long-term habits, typically of eating or physical activity, and maintaining or inculcating the new behaviour into one's daily routine. Lifestyle modification is especially relevant in today's scenario of a raging epidemic of non-communication diseases such as diabetes, hypertension and cancer.

Lifestyle modification is the core activity of the TH project, around which the other interventions are planned.

Though lifestyle modifications is being advocated at the mobile, satellite and AYUSH clinics, as well as during camps and the survey programme, the two activities exclusively designed for it are -

(i) Yoga under a Training of Trainers (ToT) model and

(ii) Sports and cultural interventions for the youth.

5.1 Yoga

5.1.1 Design

The basic design of yoga is focused on controlling diabetes, hypertension, improving flexibility and controlling stress among all ages of the population, and helping people in maintaining physical and mental health standards. In 2015, a pilot study on yoga and diabetes was conducted with 230 subjects, over a six months' period in collaboration with S-VYASA (a leading yoga university based at Bengaluru). The outcome of the study showed that 60 per cent of the diabetes mellitus (DM) patients had benefitted, with alleviation of their symptoms and lowering of the dose of their diabetic medication, after being inducted into the yoga programme. A Yoga Instructor Course (YIC) has also been introduced for the community. The course is designed to provide training in therapeutic yoga for the community, including a special curriculum pertaining to pregnant and lactating women, and schoolchildren.

The TH programme has been given further enhancement by its partnership with S-Vyasa University. Under this partnership, the University provides technical help in curriculum design, lesson planning, stationery, books, and certification on completion of the course. In 2014, TH had taken the support of a Bangalore-based not-for-profit organisation called Praful Oorja. The minimum qualification for enrolment in YIC is 12th standard (pass or fail), which is a special concession given by the university as their minimum standard for the course is otherwise graduation. The participants are provided a uniform, yoga mats, yoga kits, and books when they join. The course offers a combination of theory, practical classes, and assignments. TH supports those who complete the course successfully and obtain the certificate to get placement as a yoga Instructor.

Total Health has also recruited a few of the YIC graduates to work as yoga instructors for its programme, besides having a qualified yoga instructor with a master's degree for leading the programme.

5.1.2 Relevance and Coverage

Seven batches with 52 candidates have undergone training and obtained YIC certification from S-Vyasa University. Of these, TH has employed 11 as yoga outreach instructors for training the community. Nearly 204 women and men practise yoga regularly under the supervision of these YIC graduates and the overall guidance of the yoga instructor. The programme has been extended to Zilla Parishad schools and the Apollo Nursing College in Aragonda. As of now, the programme is being run in 18 villages, five nutritional centres and 13 schools in the mandal.

Each of the YIC instructors conducts classes in different villages, with a minimum number of 20 members in community-level training, 50 students in school and 15–20 pregnant and lactating women in the nutrition centres. The duration of the classes of the outreach programme are one hour for the community, 45 minutes for schools, and half an hour for the pregnant and lactating women.

5.1.3 Effectiveness

One of the significant features of the course is that most of the participants for the YIC course are women, although now a few boys have also joined. The instructors, while imparting yoga training to the community, also explain the benefits of learning and practising yoga. This has brought about awareness among the public and 204 persons have registered and attend yoga sessions regularly.

Eighteen of the YIC graduates and 60 community members enrolled for the yoga programme were interviewed for process evaluation to understand their perceptions and experiences. All of them professed to be practising yoga regularly and say they have benefitted by way of flexibility. About 89 pr cent of them also felt that they are able to control stress and are getting better sleep. There were about 23 people among them who had chronic breathing problems and 78 per cent of them said that they have benefitted in their breathing since joining the programme. Among the diabetics (15 interviewees), 61 per cent felt that they are able to control their blood sugar better (in addition to the changed food habits brought about by the counselling during the course and at the project's clinics). Nearly 50per centof the participants interviewed had been able to reduce their weight after joining the programme.

The community is reaping major health benefits through yoga as a life style modification programme. During FGDs, a vast majority of the participants who had previously undergone the course reported a significant improvement in mental health and in physical health, especially among those with hypertension, diabetes, and back pain, for which they previously used to be on regular medication at the hospitals or with private practitioners/RMPs. Besides the relief in symptoms, it has helped in checking the financial drain from the costs of undergoing these treatments. The YIC course also offers a source of livelihood for those selected as instructors and the enterprising among them who have begun to give yoga classes in the community – four of them currently. The YIC instructors get a basic salary of ₹6,700 per month, with an annual increment, after three months of internship. During internship they are paid a stipend of ₹3000 per month, and based on performance and regular attendance, are absorbed in the program.

Many of the asanas provided are targeted towards common ailments such as diabetes, hypertension, osteoarthritis and back pain. There is also a package offered to pregnant and lactating women to help them in their delivery, as also to help them boost their immunity, and strengthen their pelvic region. For school children, asanas which promote concentration and memory have been introduced.

The centre's yoga programme has come a long way since its inception and has mostly expanded due to the goodwill and the reputation of TH and its interventions, and to the results of the training of the first batch of participants of the YIC course. A number of people from the nearby villages expressed their interest in enrolling themselves in the programme, and the centre is currently training its seventh batch of participants.

5.1.4 Sustainability and Replicability

Every day, more people of the mandal are getting aware of the benefits of practising yoga. Those who have been initiated continue to practise at their homes even if not enrolled in the centre's programme. Yoga is thus another successful and sustainable model created by TH. It has plans to scale up yoga in all the 32 Gram Panchayats and to cover another 40 villages by the end of March 2020.

5.1.5 Recommendations

School children attending yoga classes were found to be casual with regard to their attendance. It is recommended their attendance should be monitored by the yoga instructor and those children who are in the habit of absenting themselves without reason should be motivated to be more regular in order to get the benefits of the practise of yoga.

There must be proper tracking mechanism to ensure the efficiency of the outreach.

Many YIC graduates are interested in advanced training and making a career in the field of yoga. The course presently offered is a basic-level course. S-Vyasa University should be approached for grant of a degree course with relaxations in the educational qualifications of the participants as offered for the current course.

5.2 Sports

Sports and physical education are an integral part of education and a means to achieve physical and mental health for the youth, and also help bring about lifestyle changes in adults, especially those with NCDs and those at risk. With this concept, and with a slogan 'bringing people together for creating a better tomorrow through sports', TH has invested in organising rural sports meets for different categories and in different fields in the mandal.

It has organised a 'Padma Vibhushan Dr P.C. Reddy Open Cricket Tournament' and an 'Open Volleyball Tournament' in 2017. It also sponsored the first state-level kho-kho premier league at Chittoor. In addition to organising such tournaments, TH is providing sports material and support to government schools in Thavanamapalle Mandal.

5.2.1 Recommendations

There is scope for TH to widen its horizons by establishing its own sports and athletics complex and, in collaboration with the AP Government sports authorities, to organize regular summer training camps for selected students.

Section 6 Infrastructure Development

Corporate Social Responsibility in India recognises infrastructure as the feasible driver for rural development. In this context, there is a growing trend in CSR to support the provision and maintenance of infrastructure in rural areas, focusing on schools, communities, and Gram Panchayats. Total Health has invested in the following infrastructure development.

6.1 Drinking Water

The provision of potable water has been given priority in the Constitution of India, with Article 47 conferring the duty on the State to provide clean drinking water and improve public health standards. Complementing this initiative by the state government, TH has initiated providing safe and potable drinking water in adequate quantity with easy accessibility to all, wherever the state facilities are either lacking or inadequate.

6.1.1 Design

In association with Gram Panchayats (GPs) and the community, Total Health has invested in nine water plants (including one on the TH premises). In this process, the community has provided the requisite site, constructed a shed/small room, and provided a water source, while TH provided the plant equipment. It is ensured while procuring the equipment that the manufacturer provides regular maintenance and support. The units were found to be managed in a business mode and self-managed by the community. Two models – reverse osmosis (RO) and rapid sand filtration (RSF) water plants have been installed by TH. The project currently only promotes the RSF plants in view of the benefits of the same over the RO plants and also to ensure less water going to waste.

A card system has been introduced and issued to those who wish to obtain water from the plant. In the community-operated model, a unique feature which has been introduced is a coin-operated machine. The initial machinery has been established with the support of Total Health and the maintenance of the plant is through the revenue generated from the plant.

Each 20-litre draw is charged ₹3. In the plants, which run in partnership with the GP, the operating expenses of the plant, including the salary of the operator, is taken care of by the GP from the profits they earn. In some of the plants, for example, the plant in Aragonda, an autorickshaw has also been arranged to supply water to the households with an extra service charge of ₹1 per can of 20 litres.

The maintenance and supply arrangements are running entirely without any disturbances, and the TH team carries out routine visits to the plants and the community from time to time to find out any challenges and also ensure regular physical, chemical and biological testing of the water samples from the source through the state department.

6.1.2 Relevance and Coverage

In Thavanampalle Mandal, there is a felt demand for a water plant. Similarly in some other villages also, there is a demand for drinking water sources. Investment in more water plants is relevant. In terms of coverage, the plants are benefitting over 5156 households with 20,624 of the population. Each household is allowed to draw 20 litres per day in normal circumstances. In addition to the general 8X8 rule of individual water consumption, Total Health is promoting the use this water for cooking purposes as well by households.

6.1.3 Effectiveness

As a part of process evaluation, about 40 women who draw water from the RO plant in Aragonda were interviewed. All of them said that they get clean water and the taste is good. Nearly 50 per cent said that they use the same water for cooking purposes also. Quite a few realised that using purified water reduced incidences of diarrhoeal diseases, especially during summer and rainy season. Most users, especially the women are satisfied with this facility. The maintenance of the plants is very good as the community has taken ownership of the facility. Total Health has thus created a very successful model of public–private ownership.

6.1.4 Sustainability and Replicability

The present intervention being a public–private partnership model, is sustainable. More importantly, Gram Panchayats and the community are taking responsibility for management to make the model workable. Most of the villages in Thavanampalle Mandal have a drinking-water problem, particularly during the summer season. Fetching clean water is a challenge for the women especially and thus, the model is a felt need of the community, and relevant and replicable.

6.1.5 Recommendations

During the household survey, TH examined and identified the villages where a drinking-water problem existed and where waterborne diseases are a challenge to the well-being of the community, and installed water plants there. This was subject to the willingness of the GPs/local village panchayats to support the project.

It is recommended that a census be done to identify if any village/area has been left out where dire need exists and to motivate the village panchayat/GP to install the plant.

6.2 Individual Household Latrines

On 2 October 2014, Prime Minister Narendra Modi launched the Swachh Bharat (Clean India) Mission, to ensure no household was without a sanitation facility and to eradicate open defecation by 2 October 2019, the 150th anniversary of the birth of Mahatma Gandhi. The target of the rural programme was the construction of 111.1 million toilets at a projected cost of US $ 30 billion.

Supporting the government initiative of Swachh Bharat, TH has invested in supporting the village panchayats in this effort.

6.2.1 Design, Relevance and coverage

Thavanampalle Mandal has been declared as ODF (open defecation free); however, a few gaps still exist, especially among the underprivileged communities. Total Health is trying to fill these gaps by supporting individual household latrines (IHL) with an additional ₹3000 per family to construct these facilities in five GPs of the mandal. Till February 2019, TH had supported 818 households in achieving ODF status. Most of the beneficiaries said that partial financial support from the project had reduced the financial burden on them because support from the government was not sufficient to construct the toilets. Those who received the grants have constructed the toilets and are using them.

Besides, as a part of the mission, TH has provided dustbins to 2600 households in Aragonda and sensitised them on their use.

6.2.2 Effectiveness

After construction of toilets, utilisation is the key factor. A majority of the beneficiaries were found to be using the toilets. However, a couple of community members confessed that they still resort to open air defecation, and among these individuals, proper sensitisation is essential, as also involvement of the community leaders.

6.2.3 Recommendations

Awareness programmes are needed to sensitise the public on risk factors of open-air defecation.

Maintenance of toilet hygiene is another aspect which needs to be ensured through sensitisation and education campaigns.

Ensure that all beneficiaries who construct toilets construct them according to the correct technology and utilise them properly.

6.3 Infrastructure Support in Schools

As per demands put forth by the school administration, TH has been supporting the schools in maintenance activities such as whitewashing and repair of school buildings and toilets, providing desks, provision of drinking water and toilets, wall paintings, and electrification. For these activities, there is no particular design drafted by TH, as it is as per the demands from the school authorities. TH initially chose the two Zilla Parishad High Schools (ZPHS) in Aragonda for the support activities.

In Zilla Parishad Girls' High School, wall paintings and construction of handwashing platforms, 20 urinals and nine toilets has been supported. In ZP Boys' High School, along with whitewashing of the building and wall paintings, desks, three toilets and eight urinals have been constructed.

Despite some of the facilities being constructed/renovated it was observed that the facilities at both the schools are poorly maintained by the school administration. The girls are using the urinals and toilets, but the boys are not using theirs because of their unhygienic state. The school administration has to be sensitised to take necessary steps towards maintenance of its facilities. Total Health has to take up this important task and also have a monitoring mechanism to ensure proper maintenance and usage of toilets and urinals at all times.

6.3.1 Recommendations

There is enormous scope for Total Health to play a pivotal role in ensuring the maintenance of toilets in schools. During the process evaluation, most students were found unaware of hygiene practices (particularly hand washing) and their importance. It could be because of lack of proper facilities and also deficit of knowledge. Total Health must launch WASH across all schools of Thavanampalle Mandal.

6.4 Plantations

Plantations along roads are being promoted by the state and central highway authorities to reduce the impact of air pollution, as trees and shrubs are known to be a natural foil for air pollutants to an extent. They also provide much-needed shade along the roads during summer.

Dr P.C. Reddy's vision goes beyond these scopes, as he desires to give to the community what he enjoyed in his youth by way of large orchards and fruit-bearing trees along roads, as also in schools

and public places, to enable the community to inculcate the habit of consuming fruits and also to plant trees to save the environment.

Total Health started plantation interventions in 2018. To date, a total of 11,540 saplings have been planted at various locations, including schools and public places. Saplings are also distributed on request to the local police station, PHC, ZPHS and even individuals who have taken responsibility for planting and maintaining them. The project also installs tree guards, innovatively designed and made of bamboo, to avoid pilferage while protecting the saplings.

6.4.1 Recommendations

To further propagate the tree plantation drive and increase the survival rate of the saplings, TH has to play a leading role for motivating and educating the decision makers in the GPs, village panchayats as well as in institutions and the industry in the neighbourhood.

Besides, new varieties of fruit bearing trees can be freely distributed in the community, for which support can be taken of the district forest authorities after motivating them to adopt the mandal as a model project for their plantation drive.

6.5 Solar Street Lights

Total Health entered into a partnership model with Philips India for installation of solar street lights, taken up first at Aragonda village where 35 lights have been installed in 2016. Total cost of installation of each set (including pole, battery, battery stand, 10-watt LED bulb and solar panel) is around ₹35,000. This cost has been borne by TH and Philips. The system eliminates wiring, trenching, and other installation-associated requirements of conventional electricity lamps, besides the saving on power expenditure. Total Health has also extended this model at its campus, Apollo Nursing College, Apollo ISHA School, and Apollo Hospital, Aragonda.

Along with facilitating the community with the solar lights, TH also sensitised the local government and community on the benefits of using solar power systems by involving the Sarpanch and community members in the process of survey and selecting the spots for installation, the type of solar lights to be installed and at what height the lighting was desired. The first two years' maintenance was supported by Philips and has now been handed over to the village panchayat.

Total Health, in association with another lead corporate in the area, Amar Raja, is trying to enter into a model for maintaining the lights installed as the village panchayat tend to neglect the maintenance, resulting in the lamps functioning poorly or becoming dysfunctional.

During the process evaluation, a few decision makers in Aragonda were contacted to ascertain their perceptions about the solar street lights. It was heartening to note that they understood the advantages of using solar lights, e.g., it saves power and is environmentally friendly. However, most opined that the cost of maintenance was high.

6.5.1 Recommendations

The Gram/village panchayats need to be educated regarding the benefits of solar lighting and must take up the mantle of extending them in their areas as well as maintaining them.

Phillips or any other company must also be involved into installation of sturdier models and educating of the administrators and the local population to adopt solar power as a way of life.

Section 7 Summary and Conclusions

Through the Total Health programme Dr Prathap C. Reddy and Apollo Group of Hospitals have established a successful model for rural and semi-urban health and economic upliftment to meet the societal needs in 195 villages of Thavanampalle Mandal, Chittoor District of Andhra Pradesh. They have also created a model for the health and economic development of rural and semi-urban areas of the nation.

Total Health has made a commendable endeavour to address the challenges faced by the rural and semi-urban societies after actively understanding their critical needs through a survey designed on the lines of the WHO STEPS approach, FGDs, and individual interviews with village panchayat members/decision makers.

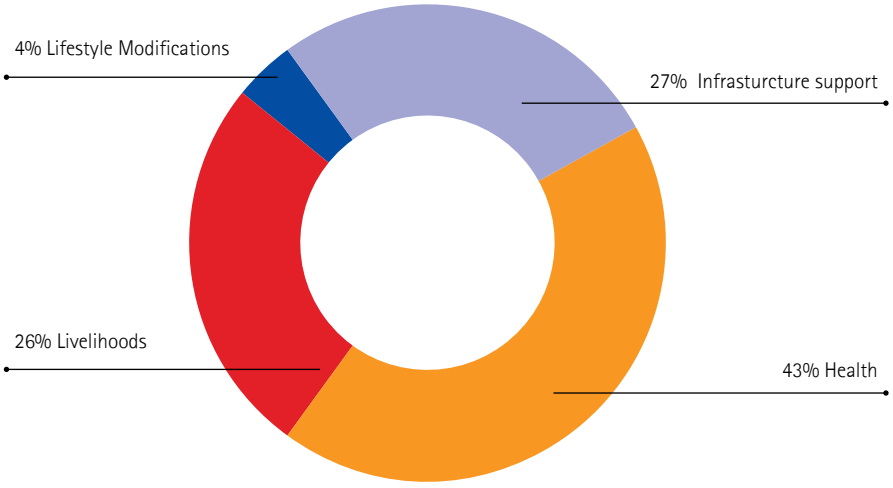
Since its formation (2014 to 2018) about ₹116 million (equivalent to US $ 2.5 million) has been bestowed by Dr PC Reddy for multi-sectoral interventions focusing on health services, livelihoods, lifestyle modifications, and infrastructure support.

Of the ₹116 million, justifiably 43 per cent has been allocated to health services to meet the vision of Dr Reddy of 'bringing health care of international standards within the reach of every individual'. Of the remaining, 26 per cent has been invested in building capacity for livelihoods, 4 per cent on lifestyle modifications, and 27 per cent on infrastructure development.

Every year, since its inception in 2014, Total Health has conducted a community snapshot to gain a deeper understanding of the community profile, along with their needs and challenges. The project plans its future operations based on these outputs,.

Today, Total Health is not only a successful model for rural and semi-urban health and economic upliftment for the nation,.but it is also a very workable model for CSR investments for other corporates to adopt for strengthening and complementing the efforts of the state and central

Fig 4: Quantom of Philonthrophy
(Between 2014-15 and 2018-19)



Source: MIS ARH

governments in achieving their goal of development for all. For the governments both state and central, it would be in their interest to acknowledge and recognise the achievements of the project and dovetail this and similar projects within the ambit of their schemes so as to complement the efforts of the project to avoid duplication of efforts.

As he showed the way forward for corporate health in the nation, Dr P.C. Reddy has again shown a way forward for other corporates to follow as they strive to make a footprint in our nation's development through the initiatives of their social responsibility.

Section 8 Case Studies

Introduction

Case Study Documentation: A Note

Background

The evaluation of Apollo Total Health project at Aragonda in Chittor district necessitated, after initial discussions with project team compilation of case studies from the field. Such an effort called for necessarily involvement of stakeholders from both ends: top and bottom. There was unanimity among the group members that the case studies would bring out brief, yet absorbing pen pictures of the programme interventions juxtaposed by stakeholder perceptions. In a joint working group meeting, topics for case studies were finalised and it was decided to cover six case studies which would fairly represent all the programme interventions by ATH.

The Statement of Purpose

Case study brings to the fore a default conviction: that the programme narrative and operational details along with field-based interactions present before the reading world an interesting episode on the select subject. While this always remains the stated purpose, there is another nuance and delicacy in the very assignment. It is all about fluting theme-related social convictions and implementation efficacies among the broad spectrum of development professionals and sympathisers. The third and yet an angle of equal importance is self-instruction and preventive wisdom. The glitches and difficulties (often called grey areas) in programme implementation are often unfolded through case study documentation exercises. These inputs will instruct all those concerned in taking preventive measures with an eye on contemplated efforts at avoiding all possible pitfalls in the days to come. The field-based observations are hence reserved for internal use and understanding with the proviso that they are understood in a proper perspective by the implementing staff, especially the managers and grassroots workers.

Understanding the Nature

Case study, at the outset is not about success story alone. Success story belongs to the genre of profiling success of a programme intervention from third person's perspective. It is always a pleasant task both for the managers and the compiler. For, it is a narrative from human-interest angle. It is meant for consumption of readers interested in epidermal projection of what worked well during the implementation of the designated programme. This will serve the important aspects of advocacy and public relation matters. On the other, case study is a critique – of programme intervention, stakeholder perceptions, gaps and suggestions for future improvements. It is thus a tool with a dichotomous advantage: success story with a critical tag. The former is for project profiling and the latter is for internal brainstorming. The case study documentation, for all administrative and management reasons is often undertaken with a dual purpose and involves two important human resource variables- that of implementing partners (in other words, managing stakeholders) and cooperating public (in other words, participating stakeholders). A serious case study tries to capture the best of differing perceptions between these two crucial variables. It also presents the succinct narrative about the success of a particular intervention and, encouraging personal episodes of people telling upon the durable efficacy of the programme implementation in a nutshell.

Apollo Total Health: Selection of Case Studies

The ATH *(Apollo Total Health)* project intervention at Aragonda comes with a necessary social commandment: protecting life and promoting living. It emanates from the social understanding of philosopher-activist founder of Apollo medical institutions, Dr. Prathap C. Reddy whose socio-medical work firmly rests on the dictum, illness to wellness paradigm. It indicates a situation where people hale and healthy are active in livelihood pursuits thereby striking a proverbial balance between health and wealth. Following these stoic and yet social considerations of the founder, the ATH project draws its major strength from its health interventions along with a few livelihood activities in the designated geographical area, Thavanampalle Mandal in Chittoor district. It is but natural that the selection of case studies is subject to these priorities and, the joint meeting of project management unit and evaluation team zeroed on the following topics for case study documentation: Yoga, Nutrition Centres, NCD (Non-communicable Diseases), Health Cards, Ayush Programme and Jute products

Of the six case studies suggested and recommended, five of the themes are either directly or indirectly related to health programme interventions of the project and the rest is livelihoods theme. As stated already, detailed interactions with participants (management and individual participants) had been undertaken as part of the study. The top management representatives (Director, COO, Dy. Director, Finance Manager, IT Manager etc.) have been consulted along with the second rung implantation staff like Yoga instructors. On the other hand, FGD (Focus Group Discussion) was conducted with members of nutrition centres, jute production centre etc. and, individual interactions were undertaken in all appropriate cases. Whenever necessary, datum details were culled out from office records and IT files. Interactions were conducted at two places: office and village(s).

Presentation of findings

Each case study (pictorial and narrative combined) is broadly divided into three parts: first, programme narration (broad contours of programme, operational details, timelines, financials etc.); secondly, FGD and individual interactions with an eye on documenting the best of the story; thirdly, commenting on the efficacy and the grey areas that need enhanced focus from the project management. It has been agreed within the team that each case study might not exceed 1200 words (an ideal narrative that does not wean away reader's interest while going through the document) and be supported by appropriate pictorial presentations. Of course, there are amicable violations of this common agreement where a few case studies ran well above the suggested word limit. All the case studies try to bring out the emotional quotient as well as pure programmatic intentions. The main description is tailed by the subject-specific note on grey areas and possible suggestions. This part is conveniently detached from the main narrative and is separately provided in order to delve into corrective measures in tackling some of the urgent concerns. And the rest is meant for profiling and public consumption.

Poverty Learning Foundation

Case Studies 1 Yoga for All: A Socio-Medical Fusion Experiment

Setting

The concept of fusion is often heard and felt in the realm of music and dance (promoting new age cultural production cross-cutting the boundaries). At Aragonda in Thavanampalle Mandal of Chittor District (South India) a new socio-medical fusion experiment is in operation, thanks to the visionary engagements of Dr. Prathap C. Reddy, the founder of Apollo Hospitals. The *Yoga* project intervention was conceived and introduced in the year 2015 as part of Apollo Total Health Programme. According to the Director, Dr. Subbanna the programme was part of organisational philosophy trying to flute ideas of medical wellbeing through social programming. The project has been trying to infuse traditional wisdom of inherited Indian health practices into the realm of public health domain. In doing so it churns out an interesting combination: of time-tested indigenous *Yoga* practice and its juxtaposition with social development sector. The Chief Operating Officer of the project, Dhanunjay encapsulates the essence thus: the preventive aspect of human health is envisaged and focussed in the *Yoga*-driven social programmes while the acute medical ailments are treated by Apollo hospital (allopathic). The intervention thus denotes the social concerns of a reputed medical house in South India and the effort astonishingly remains impartial as there is an equal emphasis on the traditional wisdom of ennobled Indian traditions. Though *Yoga* is prescribed by Indian seers and sages for the final liberation of individual from grief, suffering and pain, the practice has been effectively engaged at mundane level to treat and prevent physical suffering in many instances today. Apollo project reflects this part of application of *Yoga* in its current programme interventions at Aragonda.

ATH: Brief on Yoga Programme Intervention (2018-19)

Inception
2015

Current HR Strength
11 yoga Instructors (9 female and 2 male)

Annual Budget
Approx. 15 lakh rupees (5% of total annual outlay)

Coverage
15 communities and 13 government Schools in Thavanampalle Mandal

Participants
Villagers (114); Mothers (45) and School Children (1900)

Salient Features
Certificate Course in Yoga; Normal Deliveries; Healthy living for all; Control/cure of chronic ailments like diabetes, hyper tension, back pain and thyroid through Yoga.

The Programme: Timeline, Components and Coverage

Yoga for all and yoga for preventive care are the twin goals of the programme aimed at dealing with general health and chronic ailments. The programme is not designed as a standalone intervention. It enjoys organic linkages with other programmes like nutrition, community mobilisation and school education. The timeline of the programme is:

2015: initiation of the programme (focus on community outreach, propagation)

2016: Yoga classes introduced (three instructors and 10 participants at the project office)

2017: Three-month Certificate course in Yoga introduced (affiliated to VYASA, Bengaluru, a UGC-recognised Deemed institution); 16 students admitted into the course

2018: instructor strength increased to 10

2019: 11 instructors and one master trainer *(certification course is followed by recruitment. After conducting a basic IQ test eligible candidates are recruited in the project as Yoga Instructors)*

The three major components of the programme are: community outreach, coverage of five nutrition centres (supply of supplementary nutrition) and promotional classes in government schools. The design of the programme is intertwined with other programme interventions of the project. The make-up of the design and its implementation are marked by smooth progression and satisfactory response. Each component of the intervention is specifically aimed at a particular target group: the community outreach programme focusses on the general wellbeing and preventive aspects and tries to rope in both women and men (15-65 age group). The intervention in the nutrition centres is solely meant for pregnant and lactating mothers. While natural delivery is the focus of Yoga classes for pregnant mothers (butterfly posture and its practice), regaining general fitness forms the nucleus of classes for lactating mothers. The school intervention is a kind of general awareness campaign and it is believed that growing awareness among the students in impressionable age is expected to wean them away from questionable indulgences of youngsters (especially male kids) in deviant personal habits. Added, Yoga classes in schools are considered as effective social tools of personal discipline, concentration and alacrity of mind.

From Sufferer to Change Agent

Vedamba, a middle-aged woman Yoga instructor in the project has her own story to tell: of suffering, conviction and propagation. Trying to meet both ends meet at the domestic front, she developed back pain in course of time. The wriggling pain made her stationary and sitting physical postures difficult. Being a woman from a traditional Indian family, she could not afford to lie down all the time since she was expected to perform household duties without fail. While in quest of possible remedies to the suffering, she was drawn towards Apollo Total Health project and joined the Yoga classes in 2015. Within a short span of three months (24 sittings at the rate of two per week), she could heave a sigh of total relief. This was the beginning of a new chapter in her life. Notwithstanding the domestic pressures, she joined certificate course in Yoga offered by the institution. After its successful completion, she was employed as Yoga instructor. Since June 2015, she has been on the job. Today she propagates the importance of Yoga as a remedy for many physical ailments and conducts classes for women, pregnant and lactating mothers and school children. With satisfaction writ large on her face, she informs that Yoga is a remedy: medical remedy for many ailments and social remedy for the general wellbeing of all ordinary humans. She says: it a stimulating tool and there is a need for emulating the practice.

In terms of preventive (curative aspects included in some cases) element, the Yoga classes that are offered at the community level have been rated highly satisfactory by the managers of the programme. For, inputs from the participants vouchsafe for the effective uses of Yoga. Diabetes (Yoga asanas like Sasankasana, Ardhamaschendraasana, Vakrasana etc.), hyper tension (Pranayama), thyroid (asanas like *Sarvangasana, Matyasana, Setubandhasana* etc.), back pain (asanas like Bhujangasana, Marjalasana, Salabhasana etc.) and knee pains (Patiala movements) are some of the chronic ailments that have been controlled through regular practice of Yoga.

One of the innovative interventions undertaken by the team has been the introduction of a crash course on refining the nature of individual character called *Personality Development Course (PCD)*. It is a summer crash course meant for students in the age group of 12-16 years. The famous maxim goes like this: *Child is father of the Man*. If not moulded in the formative stage, the moral, social and individual character of growing children will do more harm than good to self, family and society. With an eye on engaging Yoga for personality development, the summer crash course has been introduced in the year 2017. Two batches of students drawn from the Mandal (each comprising 50 students, both female and male) have successfully participated in the sessions. The course structure revolves round a few important topics that often are found missing in today's classroom curriculum: capacity building; stress relief measures; social and moral ethics based on traditional and modern classics etc. Commenting on the programme, Dr. J Subbanna (Medical Director) and Dr. Rajagopal (Deputy Medical Director) inform in one voice that *the current programme is truly reflective of the social concerns and ethics of the founders as their ideas are topically embedded in the design of the medico-social intervention in Thavanampalle Mandal*. A logical extension of this programme, in all probability, inaugurates a historical perspective of future wherein the dynamics of personality development (social, moral, cultural and individual) are treated in conjunction, not in isolation. An inbuilt secular tint is present.

The coverage of the programme (currently confined to Thavanampalle Mandal) is rated satisfactory by the staff members. At the outset, the coverage of stakeholders seems limited (28 communities as against 195 in the Mandal) though the interventions and programme operation remain hassle-free. Participants in nutrition programme as well as community Yoga classes are focussed (in terms of concentration and focussed attention) whereas the school intervention seems more general.

The Efficacy and Results

The immediate impact is seen in the number of normal deliveries reported from the five nutrition centres covered by the project. In the last four years, for example, between May 2014 and June 2018 there were 141 deliveries reported from the operational area of the project. 116 deliveries were normal. Regular conduct of Yoga classes (emphasis on butterfly posture enabling muscle relaxation before the mothers step into the labour rooms) for pregnant mothers was cited as one of the important reasons for normal deliveries. There are a few cases where participants reported relief from bodily ailments and chronic health problems. Amaravathi, a 59 year-old woman participant in Yoga classes at Aragonda proudly reports about the positive impact on blood sugar levels (Post Prandial Blood Sugar in the range of 350 before attending classes and 210 after attending the Yoga classes). So also, a few participants reported relief from knee pain and back pain after getting admitted into Yoga classes of ATH. There are proven cases where the participants reduced their body weight much to their satisfaction. All of them acknowledge the painstaking efforts of ATH staff.

The ***Ayush*** team has been involved in serious research and controlled studies. Recently, a pilot study was conducted for eight months (*Stop Diabetes Movement for Prevention and Management of Type 2 Diabetes Mellitus*). It was undertaken as part of what is called matched controlled study. Results of the research were presented in the form of a paper at the 8th World Ayurveda Congress (Dec 2018) at Ahmedabad. Among 650 research papers, the one by Apollo Total Health Team stood 7th place in the category of best research papers. The paper is now submitted for publication in the reputed medical and referred journal, *The Lancet Journal of Diabetes & Endocrinology*.

Way Forward

Commenting on the prospects of the programme intervention the Director informs that number of Yoga instructors would be increased to around 20 so that all the 32 Gram Panchayats under the Mandal are saturated. In addition, plans are afoot to introduce risk management measures while dealing with Yoga class participants and one of the proposed plans is to update the skills of Yoga instructors while conducting refresher courses for the existing staff members. There are also plans on the anvil to attach one Yoga instructor with local PHCs with focus on pregnant mothers and instructional classes for them.

There have been some suggestions from participants as well as staff in strengthening the programme in near future. It is said that people rate this programme in a very casual manner since it is offered free of cost. Canvassing and publicity need to be innovatively engaged to attract more adherents. While the conception of the intervention is brilliant (socio-medical nature), its translation into a sustained operational happening needs some more planning and meticulous home work.

Case Studies 2 Fibre Economics: Jute Products and the Prospects

Background

Total Health Skill Centre, a project intervention as part of Apollo Total Health Project is a fine and shining example to demonstrate how Dr. Prathap C Reddy's vision of social entrepreneurship is intelligently packed and couched in all-pervasive health

programme. Subject to taking the project to its logical conclusion, the current intervention is presently making progressive strides in a bumpy manner. In the face of an alluring prospect of ready-made in-house market for finished goods, the manufacturing facility at Aragonda offers ample space for introspection and sufficient scope for gainful expansion.

The Project: Three Components

The Total Health Skill Centre was established in the year 2016 with three major components: apparel unit, air-conditioning and refrigeration training unit and jute production centre. While the apparel and jute units are conceived as income-generating interventions, the mechanical training unit is meant for training local youth in the designated trades with an eye on self-employment. The jute production centre among the three holds a lot of promise for future for two major reasons: the eco-friendly nature of product and ready-made market for the free flow of finished goods directly from the point of production to the point of consumption (without facing the often unavoidable evil of middlemen/agents).

Jute Products: A Profile

Inception
2015

Current Workforce
4 employees and 25 women wage-workers

Monthly Expenditure
Approx. Rs. 2, 00,000 (includes only operational expenditures; excludes items like building rent and interest on capital investment)

Monthly Revenue from Sales
Rs. 2, 60,000 (inclusive of regular supply to Apollo Hospital, Chennai; in-house sales; adhoc sales, counter sales at Kanipakam)

Salient Features
Assured in-house consumption of finished products (readily available market); provision for local employment; all-women workforce; safe and healthy environment for women; concessional (subsidised) education and health for children and family members of all workers.

Jute Products: Machinery and Workforce

The jute production unit (established on 24.08.2016) since its inception generated a lot of hope and prospect of immediate marketability of finished goods. Over a period of next couple of years 34 machines of Model 31 K were procured and installed in the Aragonda facility (30 machines of YLDER-make and the rest of Merit-make) at an approximate cost of five lakh rupees.

Most of the workers were recruited from local villages in and around Aragonda (Aragonda, Paimagham, Govindareddipalli, Gajulapalli, Tadakara, Reddipallimitta, Kattakindapalli etc.) spread over a radius of five kilometres. All of them are women and most of them foot their distance to the work station daily. Before laying their hands on actual production, each member received one month training programme in the manufacture of jute products. At present there are 25 women workers in the unit. Normal working hours are 8 hours per day. All the women members of the unit enjoy other benefits offered by the management: 50% concession in school fee and health cards that offer 30% concession on health services at Apollo Hospital, Aragonda. One of the working members of the unit quips: *these concessions construe a relieving feature. For me, it is more of human viability and less of business viability. For, the wages and sale proceeds are not the real benchmarks and the concessions offered by management really matter for all of us.*

Wage Component

Employment for women workers is assured throughout the year (without any reference to lean and peak periods) and every one of them works on an average for 25 days in a calendar month. Their wages are paid on piece rate basis: the smallest piece (4.5/5.5 size; pouch is an example to be cited) gets them Rs. 5 per piece whereas the largest piece (laptop computer bag) brings them Rs. 100 per piece. On the other, the regular work involves the making and stitching of health bags (14/17 size) exclusively for Apollo Hospitals, Chennai. On an average, each woman worker gets Rs. 150-200 every day. Subject to demand, orders on hand and need for regular supply of bags to Apollo Hospitals, the work is either divided or shared among them at will.

Raw Material and Production

Raw material (jute, laminated jute, Oxford jute etc.) is often procured from Tamilnadu (Gummidipundi, Namakkal), Andhra Pradesh (Eluru) and Telangana (Hyderabad). In addition, allied material components are procured from one or two dealers located at Chennai. At present, the consumption pattern seems low but constant. On an average 200-250 metres of jute (in the form of sheets) is consumed in the production on daily basis. There is nothing like off-season and peak season for this unit. The production process is regular throughout the year. The maximum (installed) production capacity of the unit toady is 1000 bags (under standard work conditions and bulk work orders). However, with the help of the 25 women members, the production unit is today producing 150-200 bags per day. The production capacity of the unit remains to be exhausted. This fact reiterates our assumption that the unit could easily scale up its product portfolio and roll into encouraging profits. Since the production capacity is not yet fully realised, the unit oscillates between the prospect of profits and the ground reality of fiscal gap (when interest on capital cost and building rent are taken into consideration). When operational expenditure alone is calculated, the unit spends two lakh rupees per month and generates a revenue of Rs. 2, 60,000 in any given month.

Market and Clientele

Lion's share in the production from the unit is absorbed by Apollo Hospitals, Chennai while there are sporadic and adhoc orders for supply of jute bags from local clients. The local orders are mostly for domestic celebrations like marriage functions and normally orders are given for 10/10 and 11/12 sized jute bags (maximum of 2-3 orders and 500 bags in any given year). Mouth publicity seems to be working in favour of a few orders from cosmopolitan centres like Bengaluru. Most of these clients are either the relatives of women workers or their known acquaintances. A few petty traders from Bengaluru purchase goods worth Rs. 20000 now and then. The adhoc orders and the revenue accrued do not constitute a regular feature. Though the assured nature of product sale is present at present, there is a definite prospect of exploring the potential for supply of jute products to other branches of Apollo Hospitals across the state and nation. In addition, the project management unit runs open sales counters in local schools (covering 6-7 private educational institutions) during their anniversary celebrations. These stalls are run for a day during the occasions. Sometimes, the unit opens and runs sales counters during local fairs and festivals including a few at Chittor. All put together, the unit raises an amount of Rs. 20000 through counter sales at these centres in a given fiscal year.

The Future and the Prospects

Women wage earners working the project are more than satisfied. They extend personal reasons for their satisfaction index. Though they are capable of earning double the amount through tailoring engagements at their domestic fronts, they prefer working for the Apollo unit for an important reason. The household incomes generated on daily basis are often used on routine errands. Their monthly commitments (for example, payment to local SHG and other monthly payments) require bigger amounts at once. Since the jute project gets them monthly payments they prefer the current work.

The employment generated by the project, the prospect of enhanced sale potential and the brand image enjoyed by the management are the push factors in the process. At this juncture, there are certain areas that call for more focussed attention. Efforts to reach criticality in terms of realising the full and installed capacity of the unit may be stepped up.

Approach to stock maintenance, working atmosphere and marketing strategies may be considered for professional refinement and progressive business opportunities. And of course, the big market in the form of Apollo chain of hospitals is waiting in the wings.

The Apollo unit at Aragonda enjoys the benefit of in-house consumption of the product. This potential needs to be fully exploited and explored in the days to come. At the same time, the branding image of the institution may be gainfully utilised to attract partners and consumers from across the nation. Progressive ban on plastics throws open an opportunity for alternate products. Jute and recycled paper products and their marketing may offer some breathing space for all thinking brains in this respect. As proven by Starbucks example in the international market, the social spending on human-interest projects has generated lot of good will for the business expansion and revenue generation. The more social spending, the more business opportunities. This is a successful social paradigm anointed by business considerations and revenue accruals. Examples galore in and around our own social situations. Let them be internalised and engaged for the benefit of the needy people. Apollo institutions have a situational advantage here.

Case Studies 3 A discourse on Wellbeing: Concessional Health Cards

Rationale Behind Intervention

Reflective of the social concerns of Total Health Project, issuance of health cards for the families inhabiting Thavanampalli Mandal was conceived by the management as a measure aimed at public wellbeing and public health. According to Dr. Rajagopal (Deputy Medical Director) the idea behind the current intervention was to promote healthy and scientific attitudes and awareness on right treatment methods among the local populace. The experimentation began during December 2013 and it is an ongoing process till date. It is an open-ended drive as the eyes are fixed on saturation of every single family in the Mandal in near future. The health cards romp home many benefits for the holders in the form of attractive concessional rates on consultation and a wide range of hospital services. The facility at present is confined to Thavanampalli Mandal in Chittor district. Founding Chairman of Apollo Hospitals, Dr. Prathap C Reddy hails from Aragonda and his nostalgia brought him back to the village with a lot of concern for public welfare. He established Apollo Hospital (1999) in this remote corner and brought modern medical treatment regime to the doorsteps of people. His concern for people had its logical culmination in shaping *Total Health* project under the CSR mandate of the Apollo Hospitals.

Health Cards: A Brief

Survey for Health Cards
Initiated during December 2013 (continuous & ongoing)

Coverage
Thavanampalli Mandal

Gram Panchayats Covered
32 Gram Panchayats (all the Panchayats)

Villages Covered
195

Households Covered
11888

Population Covered
31553 (Census 2011 figure is 53708)

Number of cards Issued
Approx. 6000

Salient Features
Ongoing process; confined to Thavanampalli Mandal at present; Health Cards linked to Apollo Hospital; 30% concession on consultation charges and treatment; 5-10% concession on medicines.

Baseline Survey

A baseline survey of Thavanampalli Mandal was commissioned in the year 2013 to gather data on every single family in the Mandal. The datum was used as background support to know the basic health history of the entire family. Executing a lengthy questionnaire comprising 222 questions on important aspects of family and personal health, the organisation used scientific methods and professional teams from Apollo Hospital in capturing the data (a kind of *knowledge, practice and coverage* survey). The questions broadly cover important aspects like family profile; individual details; physical measurements; basic health parameters like diabetes, hypertension and visible disorders; knowledge on health issues; personal habits (use of tobacco and alcohol); past history of the family and pregnancy history (for female members above 18 years of age). Data collected through tabs (small and handy electronic devices) were later consolidated, analysed and stored.

Coverage and Health Cards

Thavanampalli Mandal was covered under the survey. All the 32 listed Gram Panchayats were surveyed. In the process the team could effectively cover 11888 households and a population of 31553 (the Census 2011 figure being 53708) have been considered for data collection. The baseline survey was a long drawn process (enjoying the intermittent gaps, it continued for almost two years and a half). In order to extend immediate benefit to the families surveyed there was given a brief hiatus in the process and the gap was purposively used for the issuance of health cards to all those families surveyed till then. According to the available reports from the project administration approximately 6000 Health Cards were issued and the number is still counting. Each family (with one of the members as the prime identification contact from the family) was given a unique identification number generated by the system and is called *Family Identification Number* (FID). The card thus generated includes and covers details of all family members whose details were obtained during the time of baseline survey. During the first and initial phase of the programme, health cards were issued at the doorstep of families. Later the registration counter started functioning from the project office at Aragonda. A nominal fees of Rs. 5 is charged by the management for the issuance of a health card.

Medical facility at will

Hemavathi, a 46 year old lower middle class woman from Govindareddipalli village gleefully acknowledges the benefits she received from the health card *(FDI Number 3879).* Citing the example of her son's treatment in Apollo Hospital during 2007, she informs that total cost of treatment for three days in the hospital was only Rs. 6000 which she could not imagine given the nature of sophisticated treatment. Though there was no health card then, the cost of treatment offered for inhabitants of Thavanampalli Mandal was very low. After receiving the health card she could treat her uterus problem (non-surgical treatment) spending a paltry sum of Rs. 2000. For her, this amount is very considerate and the treatment is possible because of the health card. Less distance, time saving and concession on tariff are the prime considerations for her family members to always think of Apollo Hospital. She admits that *even a local quack (RMP) charges Rs. 150-180 per visit at Aragonda and Apollo Hospital (Health Card) is really a panacea for many of us at the grassroots.*

Relief Centres

M. Annapurna (61 years old female/ *FDI Number 4799*) from T. Puttur village in Thavanampalle Mandal has an interesting tale to narrate emanating from her own experience in the recent past. In a road accident she suffered multiple fractures (right hand and right leg). After first aid she was rushed to Apollo Hospitals, Hyderabad for surgery and treatment. She was advised physiotherapy in the post-operative period for six months. After the completion of the suggested period she was still unable to raise her hand. It was only partial. Since she is aware of the Yoga centres being run by Apollo Total Health Project, she did not lose any time in joining the classes after her return. Owing to regular attendance to the Yoga classes and careful monitoring of the project instructors, the flexibility of her right hand exhibited signs of total relief and relaxation. She is now using her hand freely as if nothing happened to her hand in the past. Commenting on the efficacy of Yoga classes, she describes them as *relief centres* as many mendicant physical problems are honed and toned here. Linking Yoga with health cards and medical treatment is considered by many as an intelligent medico-social strategy.

The process of registration for new cards is now bifurcated: first category comprises families or members whose details were already collected during survey and who did not get card. Members from these families can directly approach the project office and get their health cards without losing any time; second category consists of those families/members whose details were missed out during the earlier survey. Ascertaining their domicile status at the outset (whether an inhabitant of Thavanampalli Mandal or not), they are directed to the health clinic of the project *(Ayush)* where their details are now collected using the same baseline questionnaire and later recommended for the health cards. Completion of the process and generation of FID number generally take 15 days and health cards are issued after allotting the unique number. The datum is always shared with Apollo Hospital, Aragonda for the purpose of cross-checking and easy identification whenever members with health cards step in.

Benefits and Popularity

Holders of the health cards are entitled to a range of benefits: 30% concession on consultation fees, all clinical tests, services, surgeries, post-operative treatment, ICU charges, bed charges (accommodation), physiotherapy etc. They also enjoy a benefit in the range of 5-10% on purchase of medicines from the in-house pharmacy. Doctors are available round the clock and treatment facilities for emergency conditions are available. Cases requiring higher treatment regimens (liver and kidney transplants; heart operations etc.) are often referred to district government hospitals or appropriate medical facility centres.

At present the popularity curve of health cards is vertically growing. As stated above, registration for new cards is an ongoing process at the project office. Though the number of new health cards/registrations is small (the limited geographical boundaries of the experiment need to be noted), the constant growth is a definite and concussively verifiable sign of popularity of the intervention. The trends in the past one year are indicative of our assumption in this regard:

Year	Month	New Registrations
2018	April	03
	May	12
	June	09
	July	09
	August	05
	September	09
	October	03
	November	09
	December	07
2019	January	06
	February	10
	March	09

The Effectiveness and Scope for Social Value Addition

The project, Health Cards is progressing along the expected lines. Though the cards do not offer free medical treatment, the qualitative aspects may not be ignored. The existing public health schemes (Arogya Sree) offer various services free of cost, but the availability of high-end medical services within a commutable distance is the great difference in the present context. Perhaps, the health card experiment may be more middle class oriented, but it is readily available for everyone at a highly subsidised (concessional) rate. Earlier the cards are issued at the doorstep. But the trend is reversed now. People regularly throng the project office with an unfailing periodicity seeking new registration. Nostalgia (concern)-driven health intervention slowly is assuming the nature of demand-driven routine in the Mandal. Since health cards issued by the project are now popular they are considered as privilege cards like Aadhar and Arogya Sree cards. That the cards issued by private player are treated on par with the government-issued utility cards is a new and emerging reality in the Thavanampalli Mandal. Available rough estimates with the project staff (uncorroborated and yet emanating from cumulative field experiences) suggest that the number of patients (of all hues and cries) knocking at Apollo Hospital, Aragonda is on constant increase.

There are some sensible suggestions from the participating public of Thavanampalli Mandal. The passionate approach and spotless social commitment of the founder of Apollo Hospitals may be taken to its logical conclusion. There are suggestions (germinating forms of amicable demand) that the concessional tariff may be enhanced upwardly (10-15% more on the tests and services offered) at the Aragonda medical facility. Given the quantum of social will and noble goal set in respect of total health of people in the birth place of the Medical Patriarch (as described by one of the respondents), Dr. Prathap C Reddy, the suggestive opinion of people may be seriously considered for ratification. So also, some more concessional tariff on medicines may be offered for all those willing to purchase and step in. One of the sensible patients who utilises the services of the project (Mobile and Satellite Clinics) puts it succinctly: *when concessional rates are upwardly revised what is lost for the project/hospital is a pittance. What, in all probability, is lost for us is anxiety, fear of expensive treatment and serious concern for family health. Perhaps, The Medical Patriarch may be pleased.*

Case Studies 4 Supplementary Nutrition: Complementary Results

Baseline Findings

Healthy progeny for healthy living and healthy work seems to be the guiding principle in the running of nutrition centres by Apollo Total Health programme intervention in Thavanampalle Mandal. The programme intervention has been necessitated by the emerging ground realties during the exhaustive baseline survey conducted by the organisation during 2013-15. Analysis of data from the survey had thrown open a new health challenge in the form of discouraging blood haemoglobin percentages of women from the pastoral tracts of the Mandal.

Conception of the Programme

The low levels of haemoglobin percentages in rural women is not an astonishingly new baseline find. But the interventions planned by Total Health Project have inaugurated new operational modes of approaching the problem. In true concurrence with the social philosophy of the founder, Dr. Prathap C Reddy the intervention of the programme was designed in such a way that the health intervention does not remain a stand-alone component. Pregnant and lactating mothers have already been covered by Anganwadi interventions of the government whereby they would receive nutritious succour for almost six months after delivery. Though the public intervention engaged all eligible women in the programme, there was a practical delicacy. The nutrition snacks (jaggery, groundnut balls, ragi, dates etc.) are provided on monthly basis. But the consumption pattern at domestic front became distributary in nature in the sense that they were simultaneously consumed by others in the family. The designated women (in the capacity of wives, mothers and daughters-in-law) felt difficult and delicate in saying definite no to other members, especially kids in the family. After all, they have a woman's heart. The subsequent outcome and consequent reality is the consumption of the food items by many or eating them in one or two spells (originally meant for a month).

Supplementary Nutrition Centres: The Basics

Programme Philosophy
Healthy progeny for healthy living

Establishment
Nine centres established (2014-18) and five are operational

Coverage
Thavanampalli Mandal
Five centres
42 mothers (across five centres): pregnant and lactating

Nature of intervention
Supply of supplementary nutrition (in addition to Anganwadi supplies); Specific focus on SC colonies; intervention organically related to Yoga practice

Salient Features
Intervention is not stand alone; nutrition/feeding is preceded by Yoga classes; focus on socially marginalised families (SC).

The New Programme Dynamics

The Total Health Project being mindful of the social and domestic delicacy deviated from the traditional path of nutrition programme as advised by the Health Advisor, Dr. Mandeep Singh. At this juncture, there was a need to relate the programme with the end goals of Total Health Project. Keeping the twin objectives at the backdrop of design, the programme has been designed using a trifurcated strategy: first, supplementary nutrition (consisting of dates, groundnut balls, egg, milk and biscuits) shall be consumed in the centre on daily basis; secondly, an innovative component was factored into programme. Since *institutionalised normal deliveries* was one of the prime objectives, Yoga classes are introduced before the supplementary nutrition is given to the mothers. The programme thus was modelled as a mini health package and all the enrolled mothers would attend the Yoga classes (butterfly posture and breathing exercises) as a matter of programme compulsion; thirdly, supply of supplementary nutrition food for 18 months after delivery (against the six month norm in government centres). There is a rural belief (bordering on a misconceived popular notion) that children would be more healthy when they would suck their mothers for a longer duration (18-24 months whereas the recommended weaning period is six months after delivery for all new-born babies). Questioning and attacking the rural belief system is not the aim of health intervention of the Apollo project. On the other, protection and nurturing of health of poor mothers has been the stated objective. Following the principle of golden mean, the project management had not disturbed the belief system. Nor it maintained a stoic silence on the subject. Alternatively, an 18-month supplementary nutrition programme was introduced (excluding the pregnancy period) for all women so as to ascertain the general wellbeing of all the enrolled members in the centre.

Operational Routines

Following the trifurcated strategy, nine nutrition centres were opened at different places in Thavanampalle Mandal. Owing to practical reasons and programmatic compulsions, the number of centres today has been reduced to five at the following places (*with corresponding strength of each centre in the parentheses*): Diguva Modalapalle (10), Charala (10), Madhavaram (09), Krishnapuram (02) and G. Gollapalli (11). These centres have been opened at different points of time (2014-18) subject to need. They are often run in one of the houses of the enrolled women and small rented accommodations (at a couple of places). The centres function for 30-45 minutes a day from 9 AM onwards (Sundays are holidays). Each session is divided into two parts: the first 30 minute duration is meant for practice of simple Yoga exercises (pregnant/lactating others) and the rest of the time is slotted for food intake. It is mandatory that all the mothers shall eat in the presence of Yoga instructor/centre in-charge and then leave the place (*a visible and verifiable programme monitoring* variable). Nutrition snacks are provided to each centre on monthly basis, locked in safe almirahs and consumption registers along with attendance are maintained. Milk is supplied on daily basis. Each centre today incurs an approximate monthly expenditure of Rs. 5000.

Growing Awareness

Most of the mothers attending these centres are aware of the importance attached to supplementary nutrition and pregnant health. The influence is so impactful that these participating mothers are prepared to share their food items with other pregnant women if they cannot, for any reasons, access the services of the centre. This admirable development is suggestive of their enlarged mind-mapping and social concern. Their own beneficial experience in the centre and the effect of the same on their personal health must have been plausible explanations for their recent thinking. On the other, many of the young mothers are aware (through instruction at the

centre by project staff and Yoga instructors) that the components of supplementary nutrition items would contain essential minerals and vitamins for the healthy growth of growing babies and the general health fitness of mothers (egg for vitamins; dates and groundnut for iron; milk for calcium etc.). All of them have internalised Yoga exercises in a way that they practise the same asanas for 15-20 more minutes every day in addition to the regular classes conducted by the project's Yoga instructor. Though they cannot name each Yoga posture they perform, they practise the same for additional time. They are more of practioners and less of theorists. All of them are aware of the existence of similar centres in other habitations run by Total Health Project.

Perceived Relevance

At the personal level, most of the mothers today acknowledge that the sharpness of mind exhibited encouraging signs of progress on account of a regular diet and exercise protocols they observe at the centre. They have, in unequivocal voice, stated that physical flexibility (muscle relaxation) is an amazing outcome from their daily participation in Yoga in addition to nutrition programme. One interesting comment from the group is about the availability of health check-up at doorstep. As the medical staff of the project visit them periodically, they are relieved form commuting considerable distance in order to visit hospital.

Impact and Operational Dynamics

The nutrition programme of the Apollo Total Health unit has been one of the very few flagship programme interventions. Though being operationalised on a small scale in the Mandal, the impact of the programme has been tremendous. At the time of inception during 2013 the reported figures for *IMR* was 14 and *MMR* was 03 in Thavanampalle Mandal. Within a short span of five years there has been observed a substantial change. When revisited the figures in the year 2018, the PHC records stated that MMR is nil and IMR is 08. These public health statistics from the government health facility ratify the team's objectives, efforts and ground level work.

The programme intervention, on the other hand, may engage its focus on some social and spatial constraints. There are many places where demand for establishment of similar centres is voiced frequently. The willingness of the project team to attend to the grassroots' demand is diluted by spatial aspects. Non-availability of accommodation (physical space) to run the centre is posing a minor problem. *This calls for some remedial measure.*

Case Studies 5 Non Communicable Diseases: A Saga of Medico-Social Work

A Background Note

Existing medical data point to one painful reality about the existence of the twin dangers of health hazards and one grim reminder about the need to tackle them on a war footing: diabetes and hypertension (erratic blood pressure). These two are called the menacing aspects of public health and have been one of the potential reasons for loss of human life. They are the known as silent killers. It is mistakenly believed that these two dangers are urban in nature while the rural tracts are free from the disaster. The blissful ignorance and social myth are busted by survey data from villages (rural habitations) calling for attention of public health practioners and social policy-makers. Even the rural tracts in the country are not free from these two twin health problems. In addition, rural women in particular often are found to be suffering from the potential danger of carcinoma (of cervix region and breasts) due to ignorance of personal health practices. It is at these imminent public health disorders in rural tracts of Chittor district that the Apollo Total Health (ATH) project has been socially engaged and medically involved.

Nature of Intervention

The intervention emanated from the visionary attitudes of Dr. Prathap C Reddy, founder and chairman of Apollo Hospitals. It is his vision that dragged top class health care system down to earth. Being personally influenced by the noble family traditions of social service, he desired to

Non-Communicable Diseases (NCD)

Coverage
32 GPs and 195 villages in Thavanampalle Mandal

Data Survey
2013-2015

Surveyed Population
53708 Souls

Screening Data
30928 people screened for NCDs
Screening: 15+ year old age group

Focus Group for cancer screening
Female Population in 35-70 years age group

Major Problems Addressed
Diabetes, Hypertension and
Cancer (Cervix, Oral and Breast)

Salient Features
Exhaustive social survey for medical problems; busting the myth that diabetes, hypertension are more urban-based; combination of allopathic and ayurvedic treatment methods; discussions with World Health Organisation (WHO) to consider ATH as a Learning Site (collaborating centre for the study of NCDs).

give back to the society and village where his ancestral leanings are present. His lineage-based service traditions and learning-based wisdom are organically intertwined when he decided to go back to his birth place with some concrete medico-social contributions. Succinctly put, his decision is a Second Coming for the caring personal traits of his character and a Medico-Social Solace for the inhabitants of Thavanampalle Mandal. The saga thus began long ago is now considered a perennial source of medical help and social caring for people. Being a seasoned and reputed cardiologist, his vision is but encapsulated in the proper reading of social aspects of personal health at village level and the meaningful understanding of the priority medical requirements of ordinary and unassuming populace. The natural consequence of his social concern has been the identification of three areas for health intervention and three major non-communicable diseases (NCD): diabetes, hypertension and cancer/carcinoma (with focus on females). The modus operandi to deal with the diseases followed his stated vision. And the rest are exhaustive survey, identification of problems, zeroing on high-risk patients, required treatment, an ideal combination of proven allopathic and ayurvedic methods, necessary follow-up and awareness generation.

Approaching the Issues

Approaches to deal with non-communicable diseases in Thavanampalle Mandal remind us all of a socio-medical trilogy adopted by Apollo Total Health project: identification, management and prevention. The focus is on public health management and the process is an admixture of allopathic and ayurvedic methods. The ultimate goal of the intervention is to avoid morbidity and mortality rate among the select populace. As stated above, the three major health problems considered under the health project are identified through an exhaustive household survey launched in 2013. The focus age group (for the current intervention) is 30-70 years. The statistics are interesting to note: total population is 53708; surveyed population is 30928; population for screening identified is 22203 (focus group in 15+ years category). The three-pronged method followed during the survey is: demographic and behavioural risk data (family profile, socio-economic status, nutrition, use of spoilers like alcohol and tobacco etc.); physical measures (height, weight, blood pressure); basic health measurements/ parameters (blood glucose levels, urine analysis, cholesterol levels etc.). The data collection, on the other, had specific focus on three important personal aspects – data on Known cases of NCD; identification of new cases for treatment; identification of high-risk population to be considered for lifestyle modification.

The first stage of identification is followed by management aspects. To deal with the recurring problem of diabetes and hypertension, the Apollo Unit introduced two medical packages of six months and one year duration with seminal focus on investigations and management for hypertension and diabetes.

The known cases of diabetes, hypertension are treated and monitored by the staff at three different levels: mobile clinic, satellite clinic and specialist health camp/advice by specialist doctors once in there months. Appropriate treatment along with medication are often suggested. In the case of high risk patients, lifestyle modifications are prescribed. The regimen includes physical activity (Yoga practice included) and nature of intake/diet. It is proposed by the project to form walker clubs at Aragonda (to begin with) and construct a walking track for the benefit of the community. Also, construction of an indoor sports stadium is under serious consideration in order to promote elevated physical activity among youth with an eye on preventing them becoming prone to avoidable health evils. The ATH team consolidates its data and treatment statistics in order to publish the results of intervention in reputed and indexed/referred online medical journals (for example, Vide Mandeep Singh, Atul Kotwal, Chetan Mittal, Rambabu, S.,

Treatment with care and concern

K Bharathi (45 years old female from Diguva Thotaraganapalle, a habitation of Tellagundlapalle), a deserted wife and mother of two kids unsuspectingly attended the health screening camp in the village conducted by ATH medical mobile team last year. The medical tests unfolded an emerging health problem for her – infection in the cervix that called for surgical intervention (confirmed case of cervical carcinoma known as *Low Grade Squamous Cell Intraepithelial Lesion* with the attendant symptoms of heavy white discharge, repeated occurrence of stomach pain etc.). She holds a health card issued by ATH project ***(FDI Number 6728)***. Upon receiving timely advice from the doctors, she underwent surgery recently (uterus removal/ hysterectomy) and is staying home now. She feels highly relieved on various counts: bleeding economic realities of the family do not allow her purse to pursue medical treatment on her own; she has two parents and one college-going son who depend on her work and labour; family does not possess any farm land and has to solely depend on two cows and milk supply; desertion by husband made her movements in the community limited and protected. These painful realities at the domestic front kept her away from voluntary medical treatment till date. She and her mother have all praise for the ATH intervention that regained her health and restored normalcy in the family. She is at present recovering from the surgery and is on medication for a couple of weeks more. She being a semi-literate has this much to say: *I am satisfied with the treatment. More than that I am treated well in the hospital by the staff.* Treatment with care and love by ATH and Apollo hospital teams are re-established in her case.

Sahul Bharti and Venkata S. Ram., C. 'Prevalence and Correlates of hypertension in a semi-rural population of Southern India'. Journal of Human Hypertension: http://doi.org/10.1038/s41371-017-0010-5).

The problem of cancer is treated separately with the organisation of cancer screening camps on weekly basis at different locations of the Mandal. The Friday camps are used for treatment, awareness and follow-up monitoring of the cases under treatment. These camps are often used in the detection of three types of disease: cervix, breast and oral. The recent reports suggest that a total number of around 3000 cases have been screened and there are no cases of oral carcinoma. 110 women are identified for follow-up on account of cervix cancer (12 cases being considered for surgical management and 33 for conservative treatment). 114 women are suspected under breast cancer issue (six cases recommended for surgical intervention and most of others are declared normal finally).

The Effects

The three-phased approach to the issue has resulted in progressive trends in public health management in Thavanampalle Mandal today. Efforts are on to consider expansion of the programme into the surrounding Mandals like Irala in near future. Ms. Rajeswaramma (former GP Sarpanch of Aragonda and former President of Mandal Praja Parishad) strongly bats for extension of health benefits in the adjoining Mandals (health cards, mobile clinics and Yoga classes).

She says: let the magnanimity of Dr. Prathap C Reddy be boundless and cross the boundaries of Thavanampalle. Health is not only wealth, but it is equally the strong social strength. Rolling out such act in other areas is not only divine but certainly gets more and more humane as time goes on.

To catch the disease young, the ATH project undertakes school health screening (general health camps) on a regular basis.

Let the magnanimity of Dr. Prathap C Reddy be boundless and cross the boundaries of Thavanampalle. Health is not only wealth, but it is equally the strong social strength. Rolling out such an act in other areas is not only divine but certainly gets more and more humane as time goes on.

Rajeswaramma Former MPP
President Former Sarpanch,
Aragonda

Under school health programme, the project medical team screened 5906 children enrolled in 65 Anganwadi centres and 69 government schools. The final reports identified 344 children for CVS (at second stage) and 12 children who were confirmed with CHDs. So far, the team had undertaken six surgical interventions and managed six cases with conservative treatment. Ophthalmic and cardio-vascular screening form the nucleus of the health camps in government schools. And Anganwadi centres.

These camps identify children who are prone to cardio-vascular problems or those who are ignorant of the existing problems. These children are treated free of cost at the appropriate medical centres (mostly Apollo hospitals) and monitoring follow-up is in place. There are cases of poor children who are relived from the problem (undetected till the time of health camps) and lead a normal life today. This intervention has been in the good books of community as well as parents for two major reasons: first, detection of hitherto unknown problem(s) and secondly, free medical treatment offered to the patient/child thus relieving the parents from sudden fiscal burden. There is a deep psychological aspect too. The sudden detection of problem in kids and immediate treatment given to the identified children have drastically reduced scope for extended worry of the parents and impact on their daily wage work. This has been the greatest advantage, acknowledges one of the parents.

Making a Mark

Evidence-based health approach in an intensive way has been a striking feature of the ATH project. It is intensive in terms of follow-up and striking in terms of combination of systems (allopathy and Ayurveda). Publication of research data has been seriously undertaken by the project in order to profile its work in the remote corners of South India (two papers are already published in online medical journals). The project's commitment to public health in managing diabetes and hypertension at community level is acknowledged by the recent negotiations with World Health Organisation (WHO) to consider Aragonda as a *Learning Site* (collaborating centre for the study). While the results are promising, the need for expansion of the project for the benefit of larger community in this part of Chittor district is suggested by various sections of local community. Along with the suggestion goes another underlying wish that community awareness drives may be scaled up so as to avoid delay in spreading proper awareness on the three important health interventions undertaken by the ATH.

Phased-worry and Phasing-out worry

Master Giri (son of Vijaya and Chandra) of Nallapareddipalle aka N R Palle is studying class VII in the local Zillah Parishad High School for boys. His parents live by daily sale of snacks (the popular evening dish, *samosa*) in the habitations surrounding Thavanampalle. The otherwise normal boy attended the health screening camp of ATH team in the school where the cardiac defect known as *Fenestrated Ostium Secundum Atrial Defect* was found by the visiting medical team. The problem hitherto unknown and asymptomatic sent shatters and shivers in the family. It is at this juncture that the ATH team assured immediate and timely medical help to the boy. The boy was admitted in Apollo hospital, Chennai without losing any more time and without giving any scope for extended worry for the parents. Through a procedure called *Transcatheter ASD Closure* the hospital treated the boy and discharged him in a stable and healthy state after five days. He is now normal and goes out for extended play like any other kid of his age. Recounting the sudden development his mother innocently acknowledges: *earlier worry was unknown. After health camp sudden worry descended. Thanks to ATH, now worry is no more known again.* It is an innocent statement. It poured out from her heart. The visible glee in her eyes and the satisfaction writ large on her face do not fail us in assessing the kind of relief the family had enjoyed after the treatment of Master Giri. Sometimes visible feelings can convey more than what can be constructed in writing form a live conversation.

Case Studies 6 Towards Applied Synthesis AYUSH and A Combination Therapy

A Visionary Approach to Problem

A vision took wings when the founder of Apollo Hospitals, Dr. Prathap C Reddy began contemplating on how best the public health aspects can be improved and how best one could apply the best of treatment methods present in Ayurveda and Allopathy. The consequent churning of mind and heart resulted in shaping a programme with focus on combination therapy (applied synthesis, in the words of project staffer Dr. Rajagopal). Ayush programme implemented by Apollo Total Health project in Thavanampalle Mandal is a synthesis of two major streams of treatment therapies, allopathic and Ayurveda. The traditional wisdom of Indian system of medicine and treatment combines itself with allopathic treatment methods in an appropriate manner in executing therapies to deal with chronic ailments. The three major components of the programme intervention are: Panchakarma, Swarna Bindu Vaccination and Yoga. These three elements form the nucleus of treatment where appropriate allopathic methods in juxtaposition with Ayurveda are engaged in treating the patients.

The Three Important Elements

The course of medication and treatment regimen are subject to the case history of individual patients. In the process focus is on a few important variables: first, it is an applied synthesis and, an ideal combination of ayurvedic course of treating disorders and allopathic therapies; secondly, the crucial focus is on treating chronic disorders which are not tamed by one single system of medication; thirdly, provision for cost effective treatment through Ayush centre; fourthly, development of research-based data on treatment methods for future use; fifthly, efforts in achieving criticality in effectively using the combination therapy. The preventive aspects too are seriously considered by the programme intervention through exclusive focus on Yoga and ayurvedic vaccination (immuno-booster).

AYUSH: A Profile

Inception
2015

Treatment Regimen
Panchakarma and allopathic methods (appropriate use of medical methods subject to individual case)

Basic Approach
Non-invasive treatment & lifestyle modification method

Coverage
Thavanampalle Mandal (focus area); open for all

Participants
Around 6500 patients (participants) covered

Salient Features
Combination of Indian Ayurveda and allopathy medical treatments; Ayurvedic immunisation through vaccination (Swarna Bindu); proven cases of cure in respect of chronic ailments like sciatica, psoriasis, varicose veins etc.

Using Panchakarma method the team began treating chronic disorders from the year 2015 onwards. There is an internal understanding within the project medical team that Panchakarma begins where the allopathic treatment ends. In other words, allopathic medication and treatment methods are put into practice after research, clinical trials and field-testing on patients. Added, the relief provided through invasive and non-invasive measures is instantaneous sometimes, immediate at times and less time-consuming some other times. Popular belief system too, over a period of time, shaped itself around this important anvil of time. On the other, for different reasons, the time-tested methods of Ayurveda (Panchakarma is a part) are not properly etched in the public memory of modern generations and they often remain non-invasive and time-consuming. The crucial aspect of time concept generally makes the difference. Most of the patients begin their quest for alternative when they have exhausted the well-known treatment methods and when they are sufficiently convinced that the existing allopathic treatment regimens do not have any more remedies for their chronic disorders. Ayush begins now. The Apollo project appropriately engages both the methods (non-invasive plans as a mandate) in dealing with the patients who have approached the centre seeking some durable and lasting treatment solutions. Under the current programme the Ayush centre deals with acute and chronic disorders like arthritis (all forms); spondylosis (all forms); cerebral palsy with mental retardation (focus on young children under 5 years of age); chronic skin diseases like psoriasis, leukoderma, dermatitis; asthma; varicose veins; anxiety neurosis; gastro intestinal tract disorders; sciatica; paralysis (all forms); diabetes and hypertension etc.

The Course and Results

The course of treatment (supported by an internal pharmacy run by Ayush) combines both the systems, Ayurveda and allopathy. Patients are properly made aware about the line of action and course of treatment decided by the project medical staff. Doctors from local Apollo Hospital (allopathic) and Ayush Centre (Ayurveda) often join hands in the coordinated treatment. Of course, the major share of treatment revolves round the appropriate application of Ayurvedic methods. The team of medical doctors maintains data base and conducts research experiments on their methods of applied synthesis. They have recently experimented with the efficacy of treatment methods on Knee Osteo- Arthritis considering a sample of 52 patients of with incidence of chronic ailment. During the six-month study (with 7 dropouts) the team romped home encouraging results: Grade- I (32% patients reported complete cure and no reoccurrence of problem); Grade-II (46% patients who reported significant drop in pain without its reoccurrence); Grade-III (8% patients reporting moderate relief from pain) and Grade-IV (14% patients reporting no further deterioration in the condition). These results are considered amazing by the Ayush team and are ready for large-scale profiling in the district so as to extend the same benefit to more and more number of patients suffering from the disorder. On the other, evidence-based research paper is getting ready for publication by the joint medical team (Ayurvedic and allopathic).

The Swarna Bindu Vaccination has been undertaken by the Ayush team in the last few years on a large scale. The vaccination is primarily meant for children in the age group of 0-16 (with focus of 10 year olds) and is a sure shot for the improvement of body resistance and immunity system. The vaccine comprises semi-solid or liquid medication with four major elements: Swarna Bhasma; Brahmi; Vacha and Ghee. The drug is orally applied on the calendar day coinciding with Pushyami Nakshatra (it is believed that on this day sun rays help in the ideal absorption of Swarna Bhasma, the powdered gold). The programme has been implemented in the entire Chittor district and 6500 children have been vaccinated by the project. More number of children

from Thavanampalle Mandal throng the Ayush centre for vaccination. The vaccination drug is subsidised by the centre and is priced at Rs. 100 per shot/dose. Commenting on the results of vaccination, Dr. Rajagopal rolls out the highly encouraging statistics and puts the rate of success at 80%. According to him the three major benefits from the vaccination programme have been: first, significant reduction in LRTI (Lower Respiratory Tract Infections in the target group children) and parents have reported repeatedly that their kids have been relieved from repeat occurrence of cold, cough and fever; secondly, proper physical growth (weight for age) has been reported; thirdly, significant control of juvenile epilepsy (0-6 year children). On the whole the Swarna Bindu Vaccination programme has attracted the attention of parents, teachers and communities in equal measure. This is attested by the interest shown by family members of children in visiting the Ayush centre on their own. The results are encouraging and the prospects are alluring. There are plans to expand the geographical canvas of the programme covering every child in the operational area of the ATH project.

The third important component of the programme operation, Yoga instruction and classes have focussed attention on two important aspects: first, community wellbeing and health (general fitness, normal deliveries for pregnant mothers, sharp thinking and alert minds in youngsters etc.); secondly, dealing with the chronic and inherited disorders of diabetes and hypertension. Yoga classes are conducted at various locations in the project villages and grabbing attention of all those who are in quest of some relief for the longstanding health issues. While the general execution of programme is in operation, the project medical team has been involved in the conduct of research-based study of patients. Like in the case of knee Osteo-arthritis, the team conducted a six-month study in 16 villages in the operational area (comprising 136 patients in treatment group and 124 in study group) on the effective control of hypertension and diabetes through regulation of medicine, promotion and practice of Yoga (both intensive, moderate and mild as per requirements). Breathing exercises *(Pranayama)* are stressed upon in case of stress relief and the consequent control of hypertension. Here too the results are encouraging. Around 7% of Type-II diabetes patients have reported complete disappearance of problem

Relief from Psoriasis

Psoriasis is a disease that bothers many and offers a little relief from the available allopathic medicine. Even if symptomatic relief is offered, cure of the disease is often elusive in case of a number of patients. Ms. Vedavalli of Madhavaram village under Thavanampalle Mandal (43 old female, married with one son) is one such patient who has been disillusioned with available allopathic treatment. Contracting the disease on both palms (right and left), she suffered unbearable pain and continuous itching for long. After consulting allopathic doctors she had been on oral medication for six long months before she realised that there was no let-up in the disease. Neither there was an iota of relief on account of medication. There was a positive turn at this juncture. Since she was holder of Apollo Total Health Card she attended an eye camp conducted by the medical team. During the interactions with the staff she was advised to approach Ayush and give it a try. Her family, on the other, believes in the inherited Indian traditions and customs. The timely advice along with her personal belief in indigenous practices finally landed her in the centre during January 2016. She opted for the 21-day package (Rs. 7000) and underwent treatment. At the end of the treatment she heaved a sigh of relief. To her dismay and satisfaction, her problem had completely disappeared. There has been no reoccurrence of the disease till date. Relief from the chronic disorder made her conviction in traditional medicine even stronger and she began campaigning for the Ayush centre since then. She feels proud that she is one of the brand ambassadors for the centre now and is prepared to shoulder responsibility in taking the message deep into surrounding society. She sounds positive when she says that people will be soon convinced about the effectiveness of treatment in the Ayush centre.

A boon for the family and a gift to the self

For B Jagannadha Reddy (76 years, male) of Paimagham village, the Ayush centre is a boon for chronic patients. He has been a regular visitor at the centre since the inception in 2015. He earlier approached the centre for treatment of asthma. The disease, once affected is considered a life-long companion and the existing market treatment is only controlling in nature. After testing the medicine for quite long, he shifted to Ayush treatment. After a year of regular treatment he reported complete relief from the disorder and did away with medication through major part of the calendar year. He uses allopathic drug during extreme cold season (that too for 4-5 days) at present. Rest of the year his lungs are free and his breathing is set normal. Onset of old age presented him one more chronic problem, sciatica. This is very recent. Since his conviction levels in the efficacy of Ayush methods is of high order, he chose the same methods without a second thought in trying to control sciatica pain. Starting the medical treatment in January 2019, he could totally control the pain and symptoms within next few weeks. The treatment regimen spreads over nine days. He is now under careful monitoring of centre's staff. At this age, he feels he is on cloud nine. He believes that proper maintenance of health in old age is the real gift to family members. For him, Ayush is the practical gift offered to him by the almighty. His experience with the centre made him an undeclared publicity agent for Ayush today. He has already brought four patients to the centre. Asked to comment on prospects, Jagannadha Reddy recommends systematic publicity campaigns in the district and offer of a few initial free sittings for patients (treatment at Ayush in many cases is measured in the number of sittings). His conviction continues and the success story of Ayush goes on.

and total withdrawal of allopathic drugs/medication. It is also reported that there has been no reoccurrence of the issue in the last two years (post medicine-withdrawal period). The effect is strikingly seen among the middle-aged women. In the case other patients (Type-I diabetes and hypertension), strict Yoga exercises and diet are prescribed and monitored.

The Net Effect

The Ayush project has been rated an astounding success by the staff. Asked to rate it on 1-10 scale, the unanimous rating is 7 by medical and non-medical staff at the centre. This is ratified by the opinion of the visiting patients to the facility. Starting with a trickle, the number of patients pouring in today reached around 200 per month. For Swarna Bindu vaccine, there are around 120 children visiting the centre for vaccination. The encouraging numbers have instilled confidence among the staffers about rosy prospects in future. With exceeding exuberance they are gearing up for additional tasks and targets in the days to come. Many of them are of the considered view that a mobile OP van touring the villages and public profiling of the treatment methods for chronic ailments will attract more patients to the centre. Added, updating infrastructure in the centre (equipment and professional staff) will further add to the strength of the programme. For them, this prospect has bifurcated benefits: increasing revenue for the Ayush hospital to post profits and secondly, outreach services for more needy population of the area. Cumulatively both these proposed developments are expected to fructify the vision of the founder of Apollo medical institutions. The prospect is encouraging for Ayush project.

Restoring confidence and normalcy

K Sujatha (female, 40 years) of Aragonda village contracted the disease, varicose veins during her pregnancy in 2008. She had to live with shooting pain (sleep time) for the past few years. Hailing form a moderate agrarian family with own farm lands, she could afford medical treatment at any given place and hospital. Influenced by health bulletins beamed on Telugu TV channels, she approached a Bengaluru-based doctor who recommended laser operation treatment that would cost her around 1.5 lakh rupees. She and her family members receded from going ahead with the recommended course of medical intervention for a fairly good reason. There was no assurance form the doctor on total cure from the problem in the post-operative period. According to him the disease may reoccur any time and, every time the course of treatment would be the same operation. The discouraging prospect dissuaded the family from the act. At this juncture the Ayush doctor suggested them to try the treatment offered there and know for themselves the impact of the Ayurvedic method. Giving a try, she joined the prescribed treatment course in the Ayush centre in February 2019. She completed three sittings, two for varicose veins and one for weight loss (each sitting consists of a 7-day session at the centre) before she started feeling relief. She is now free from shooting pain during sleep. This, for herself, is a commendable change in her lifestyle. She continues with the treatment as long as it is recommended by doctors of the centre. Her conviction is complete and pain relief is total. She is now prepared not to go anywhere for treatment. She is absolutely happy with the fees charged and she says, the *fees is a pittance*. All her family members (husband, daughter and two sons) feel highly indebted to the centre because it restored normalcy in her life. Being the main rudder in domestic management, her relief is family's relief. Ayush medical facility has offered this relief and today it is treated as part of Sujatha's family.

Let the magnanimity of Dr P.C. Reddy be boundless and cross the boundaries of Thavanampalle Mandal. It is his humility and social bonding with his fellow countrymen from all castes and creeds that is his strength. Rolling out such an act is indeed divine.

Rajeswaramma
Former MPP President
& Former Sarpanch, Aragonda

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